

3

Management of Men's Reproductive Health Problems

© 2003 EngenderHealth. All rights reserved.

440 Ninth Avenue
New York, NY 10001 U.S.A.
Telephone: 212-561-8000
Fax: 212-561-8067
e-mail: info@engenderhealth.org
www.engenderhealth.org

This publication was made possible, in part, through support provided by the Office of Population, U.S. Agency for International Development (USAID), under the terms of cooperative agreement HRN-A-00-98-00042-00. The opinions expressed herein are those of the publisher and do not necessarily reflect the views of USAID.

Cover design: Virginia Taddoni

ISBN 1-885063-45-8

Printed in the United States of America. Printed on recycled paper.

Library of Congress Cataloging-in-Publication Data

Men's reproductive health curriculum : management of men's reproductive health problems.

p. ; cm.

Companion v. to: Introduction to men's reproductive health services, and: Counseling and communicating with men.

Includes bibliographical references.

ISBN 1-885063-45-8

1. Andrology. 2. Human reproduction. 3. Generative organs, Male--Diseases--Treatment. I. EngenderHealth (Firm) II. Counseling and communicating with men. III. Title: Introduction to men's reproductive health services.

[DNLM: 1. Genital Diseases, Male. 2. Physical Examination--methods. 3. Reproductive Health Services. WJ 700 M5483 2003]

QP253.M465 2003

616.6'5--dc22

2003063056

Contents

Acknowledgments	v
Introduction	vii
1 Disorders of the Male Reproductive System	1.1
The Male Reproductive System	1.1
The Sexual Response Cycle in Men	1.1
Common Sexual and Reproductive Health Disorders in Men	1.5
Male Sexual Dysfunction	1.41
Male Infertility	1.48
Sexually Transmitted Infections (STIs)	1.61
2 Sexual and Reproductive Health Assessment	2.1
Importance of Taking a Sexual and Reproductive Health History	2.1
An Effective Step-by-Step Approach	2.2
Major Components of Sexual and Reproductive Health History Taking	2.4
Global Screening Recommendations	2.9
Sexual and Reproductive Health History Taking Case Studies	2.10
3 Performing a Genital Examination	3.1
Before the Genital Examination	3.1
During the Genital Examination	3.3
The Genital Examination, Step by Step	3.6
After the Genital Examination	3.16
Interpreting Laboratory Test Results	3.17
Appendixes	
Appendix A: The Male Reproductive System	A.1
Appendix B: Complications, Treatment, and Prevention of STIs	B.1
Appendix C: Testicular Cancer Facts	C.1
Appendix D: Sample Sexual and Reproductive Health History Form	D.1
Appendix E: Sexual and Reproductive Health History Questions	E.1
Appendix F: Teaching the Client How to Perform a Genital Self-Examination	F.1
Appendix G: Checklist for Performing a Genital Examination	G.1
Appendix H: Photographs	H.1
Appendix I: Glossary	I.1
Appendix J: Recommended References	J.1

Acknowledgments

A number of individuals contributed to the creation of this manual. EngenderHealth staff members Dr. Martha Jacob, Manisha Mehta, Dr. Joseph Ruminjo, and Dr. Isaiah Ndong and consultants Dr. Meghal Mehta and Dr. Randy Pritchett wrote the participant's handbook. Consultants Dr. Katherine A. Forrest and Sharon Myoji Schnare, R.N., F.N.P., C.N.M., M.S.N., contributed to the original manuscript of the participant's handbook. Consultants B. J. Bacon and Sandy Rice of the Center for Health Training developed the trainer's manual. Consultant Siri Bliesner designed the evaluation instruments.

EngenderHealth would also like to acknowledge EngenderHealth staff member Mary Nell Wegner, who initially spearheaded the efforts to develop this curriculum. In addition, we appreciate the feedback given by EngenderHealth staff Andrew Levack and consultant Dr. Pio Ivan Gomez, who reviewed the manual, and Dr. Francis Floresca, who field-tested the manual in the Philippines. We thank EngenderHealth staff Lissette C. Bernal Verbel for her contribution to this project, and we thank Liz Harvey, Anna Kurica, Karen Landovitz, Margaret Scanlon, and Virginia Taddoni for their efforts in the editing, design, and production of the manual.

We gratefully acknowledge the materials that the following resources provided:

Centers for Disease Control and Prevention (*2002 Guidelines for Treatment of Sexually Transmitted Diseases*)

Hejase, M. J., et al. (*Genital Fournier's Gangrene: Experience with 38 Patients*)

Krieger, J. N. (*Urethritis in Men: Etiology, Diagnosis, Treatment and Complications*)

Lundquist, S. T. (*Diseases of the Foreskin, Penis, and Urethra*)

Marcozzi, D. (*The Nontraumatic, Acute Scrotum*)

Swartz, D., and Harwood-Nuss, A. L. (*Common Miscellaneous Conditions of the Male and Female Genital Tract*)

Wagner, G., and Saenz de Tejada, I. (*Update on Male Erectile Dysfunction*)

Walsh, P. (*Common Conditions of the Male Genital Tract*)

Weirman, M. (*Erectile Dysfunction*)

For more information, contact:

Manisha Mehta
Program Manager, Men As Partners
EngenderHealth
440 Ninth Avenue
New York, NY 10001 U.S.A.
212-561-8394
e-mail: mmehta@engenderhealth.org

Introduction

Around the world, women carry a disproportionate amount of responsibility for reproductive health. Although women receive the bulk of reproductive health services, gender dynamics can render women powerless. Men often have decision-making power over such matters as sexual relations, family size, and seeking health care. So it is crucial to support equitable partnerships between men and women while also offering men services that enable them to share the responsibility for reproductive health. One way to reach men is through the provision of clinical reproductive health services—including a sexual and reproductive health assessment and a genital examination—which often are not specifically provided to men in many service-delivery settings.

This text builds on the companion volumes *Introduction to Men's Reproductive Health Services* and *Counseling and Communicating with Men*. The first volume, *Introduction to Men's Reproductive Health Services*, contains information to help sites and health care workers address organizational and attitudinal barriers that may exist when initiating, providing, or expanding a men's reproductive health services program. *Counseling and Communicating with Men* is designed to provide health care workers with the skills and sensitivity needed to interact with, communicate with, and counsel men with or without their partners.

This text is designed to provide health care workers with the knowledge, skills, and sensitivity needed to manage men's sexual and reproductive health disorders. The text begins by providing an overview of the sexual and reproductive health problems that a male client may face and how they can be managed, including recommendations for referral if necessary. The next chapter describes how to obtain sexual and reproductive health information from a male client that will be used in the diagnosis and treatment of sexual and reproductive health disorders. The final chapter provides information necessary to correctly perform a genital examination of a male client.

Throughout this text, the term *service providers* will be used to refer to the staff at a health care facility who manage male sexual and reproductive health disorders. Service providers may include doctors, medical officers, nurses, nurses' aides, midwives, medical or surgical assistants, and counselors. Also, terms that are defined in Appendix I, Glossary, are in **boldface type** the first time they appear in the text.

1

Disorders of the Male Reproductive System

This chapter provides information necessary to recognize, diagnose, and manage common physical conditions that adversely affect the male reproductive system and to effectively interpret clients' signs and symptoms and physical examination findings. Specifically, the chapter describes the male reproductive system, the sexual response cycle in men, common men's sexual and reproductive health disorders, sexual dysfunction in men, male fertility and infertility, and common **sexually transmitted infections (STIs)**.

The Male Reproductive System

Men have questions and concerns about their body, how it works, and the normalcy of their body throughout life's various stages, as well as about their sexuality. Therefore, service providers can play an important role as resources for helping men understand the structure of the male reproductive system and how it works. For an overview of the male reproductive system, see Figures 1-1 and 1-2. For a detailed review of the male reproductive system, see Appendix A.

Figure 1-1. External Male Genitals

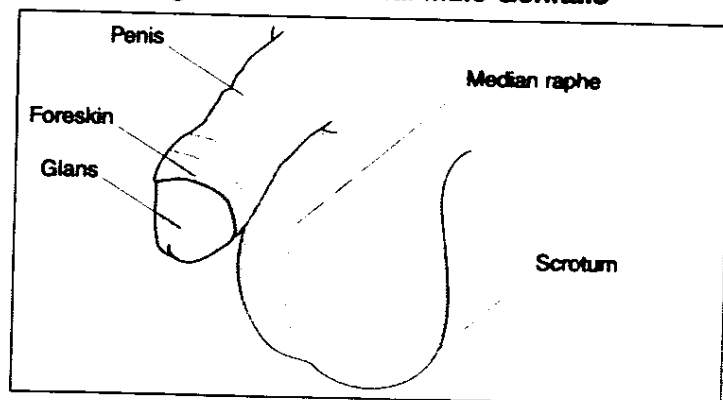
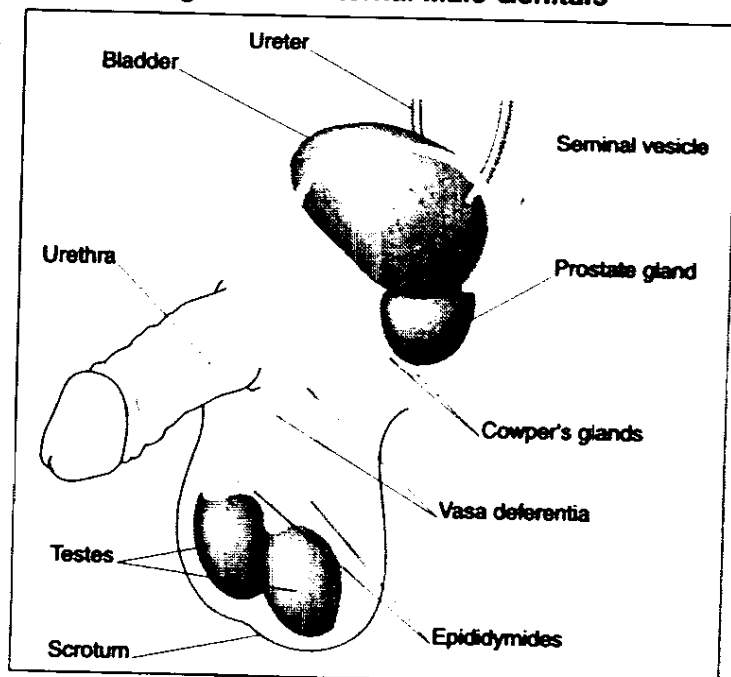


Figure 1-2. Internal Male Genitals



The Sexual Response Cycle in Men

The human body's physiological response to sexual stimulation begins with sexual arousal and may continue just after orgasm. The pattern of response to sexual stimulation is the **sexual response cycle**. This cycle consists of five main phases: desire (also called *libido*), excitement (also called *arousal*), plateau, orgasm, and resolution. Each

time an individual has a sexual experience, some or all of the phases may be reached. However, it is not necessary to complete the cycle for sexual fulfillment. The chart below provides a brief description of each phase in the sexual response cycle in men.

The Sexual Response Cycle in Men

Phase	Brief Description	Body Changes
Desire	<ul style="list-style-type: none"> Men's minds and bodies can respond sexually to a variety of stimuli—including sight, sound, smell, touch, taste, movement, fantasy, and memory. These stimuli can create sexual desire. Desire is scientifically difficult to describe because it occurs in the mind rather than the body and is subject to conditions within the brain (e.g., hormone levels). Hormonal (and chemical) imbalances can lead to sexual dysfunction. The desire phase may last anywhere from a moment to many years. 	<ul style="list-style-type: none"> No change
Excitement	<ul style="list-style-type: none"> Excitement is the body's physical response to desire. (A man who manifests the physical indications of excitement is termed to be "aroused" or "excited.") The progression from desire to excitement depends on a wide variety of factors—it may be brought on by sensory stimulation, thoughts, fantasy, or even the suggestion that desire may be reciprocated. Excitement may lead to intimacy and sexual activity, but this is not inevitable: Initial physical excitement may be lost and regained many times without progression to the next phase. It is important to note that it is not necessary for a man to be sexually intimate in this phase. The excitement phase may last anywhere from a few minutes to several hours. 	<ul style="list-style-type: none"> The penis becomes erect; the scrotum thickens; the testes rise closer to the body; breathing, heart rate, and blood pressure increase; sexual flush (reddening of the skin) occurs; the nipples become erect; the genital and pelvic blood vessels become engorged; involuntary and voluntary muscles contract; and a sense of restlessness occurs. Erection of the penis is the key indicator of sexual excitement (see "Overview: Erection" on page 1.4).
Plateau	<ul style="list-style-type: none"> If physical or mental stimulation (especially stroking and rubbing of an erogenous zone or sexual intercourse) continues during full arousal, the plateau phase may be achieved. The plateau phase may last anywhere from 30 seconds to 3 minutes. 	<ul style="list-style-type: none"> The ridge of the glans penis becomes more prominent; the Cowper's glands secrete pre-ejaculatory fluid; the testes rise closer to the body; breathing, heart rate, and blood pressure further increase; sexual flush deepens; and muscle tension increases. There is a sense of impending orgasm.

(continued)

The Sexual Response Cycle in Men *(continued)*

Phase	Brief Description	Body Changes
Orgasm	<ul style="list-style-type: none"> • Orgasm occurs at the peak of the plateau phase. At the moment of orgasm, the sexual tension that has been building throughout the body is released, and the body releases chemicals called <i>endorphins</i>, which cause a sense of well-being. Orgasm can be achieved through mental stimulation and fantasy alone, but more commonly is a result of direct physical stimulation or sexual intercourse. • Men must pass through the resolution phase before another orgasm can be achieved. • The orgasm phase may last less than 1 minute. 	<ul style="list-style-type: none"> • Ejaculation occurs; the urethra, anus, and muscles of the pelvic floor contract three to six times at 0.8-second intervals; breathing, heart rate, and blood pressure reach their highest peak; sexual flush spreads over the body; and spasms occur.
Resolution	<ul style="list-style-type: none"> • Resolution is the period following orgasm, during which muscles relax and the body begins to return to its pre-excitement state. Immediately following orgasm, men experience a refractory period, during which erection cannot be achieved. • The resolution phase varies greatly in duration. 	<ul style="list-style-type: none"> • Nipples lose their erection; the penis becomes softer and smaller; the scrotum relaxes; the testes drop farther away from the body; heart rate and blood pressure dip below normal, returning to normal soon afterward; the whole body, including the palms of the hands and the soles of the feet, sweats; and there is a loss of muscle tension, increased relaxation, and drowsiness. • Depending on a number of factors, the refractory period in men may last anywhere from five minutes to 24 hours or more.

Source: Adapted from Monila & Knowles, 1997.

Notes:

- Penetration is not necessary for sexual gratification to occur. Sexual stimulation and orgasm can take place without penetration.
- Completing the five phases of the sexual response cycle is not necessary for sexual fulfillment.
- Orgasm may vary in intensity from one man to another and from one sexual encounter to another. For some men, it may involve intense spasm and loss of awareness; for others, it may be signaled by as little as a sigh or subtle relaxation.

Overview: Erection

Erection is the process by which the penis fills with blood and becomes firm and erect. It occurs through a complex interaction of mental and/or physical stimulation. Sexual thoughts or feelings may trigger erections, as may either direct stimulation on or near the penis or other types of physical touch on the body. Erection can also occur for reasons other than sexual arousal. Erection occurs naturally during sleep and has even been observed on male fetuses in utero.

Male Sexual Response and Aging

Men have the capacity for sexual desire and sexual activity throughout their lives—there is no reason why they cannot express their sexuality well beyond the “reproductive years” (the ages during which men are fertile). In fact, men who have been sexually active throughout their adult lives seem to be more sexually responsive in old age than those who have not. The key to maintaining sexual function in later years is to continue a pattern of regular sexual activity over a lifetime.

Many cultures have strong biases against sexual activity among middle-aged and elderly men, and expressions of sexual attraction among elderly men are sometimes treated with disdain. In much of the world, “sexy” is synonymous with “young”—media images of young, sexually vibrant men abound, while images of healthy sexuality among those middle aged and beyond are nearly nonexistent.

These attitudes can keep middle-aged and elderly men from receiving adequate health care. For example, health care providers often neglect to address issues related to sexually transmitted infections (STIs) when they are treating older clients because they mistakenly assume that older clients are not engaging in risk-taking sexual behaviors. Similarly, providers who do not consider the effects of chronic medical conditions and medications on sexual response when dealing with older clients may not anticipate these clients’ dissatisfaction with services and discontinuation of treatment if side effects occur.

Normal Changes in Response with Age

Although sexual activity can continue well into a man’s 90s and beyond, the aging process *does* have an effect on male sexual response and function. Generally, the sexual response cycle in men slows down: The phase of response takes longer to achieve, the intensity of sensation may be reduced, and the genital organs become somewhat less sensitive. Sexual excitement and orgasm are diminished, yet pleasurable. Erectile dysfunction is more common with aging due to changes in penile blood flow. The incidence of **benign prostatic hyperplasia (BPH)** and prostate cancer increases with age. The presence and/or treatment of these disorders can result directly or indirectly in urinary, erectile, or libido problems. The chart on the next page shows the range of typical age-related changes in male sexual response.

Typical Age-Related Changes in Male Sexual Response

Phase	Body Changes
Desire	<ul style="list-style-type: none"> • Possible decrease in libido
Excitement	<ul style="list-style-type: none"> • Delayed and less-firm erection • Delayed nipple erection, but nipple erection lasts longer after orgasm • Longer excitement phase • Decreased pre-ejaculatory emissions • Longer interval from excitement to ejaculation • More direct stimulation required to achieve and maintain erection • Reduced muscle tension • Diminished lifting of scrotum and testes with more rapid return to prearousal state • Shorter phase of impending orgasm
Plateau	<ul style="list-style-type: none"> • No change
Orgasm	<ul style="list-style-type: none"> • Shorter ejaculation time • Reduced volume of ejaculate • Fewer ejaculatory contractions • Shortened phase of expulsion of semen
Resolution	<ul style="list-style-type: none"> • More rapid loss of erection • Significantly longer refractory period, though with a more rapid return to pre-excitement state • Nipple erection lasts longer after orgasm

Common Sexual and Reproductive Health Disorders in Men

This section provides information on the signs and symptoms, physical examination findings, differential diagnosis, and management of the common men's sexual and reproductive health disorders listed in the chart below. General comments are also provided.

Service providers and health care facilities are strongly encouraged to supplement this material with appropriate medical reference books that present information about these and other conditions in greater depth. (See Appendix J for a list of recommended texts that contain information about men's health topics.)

Common Sexual and Reproductive Health Disorders in Men

Disorders of the Anus, Rectum, and Colon <ul style="list-style-type: none"> • Anal fissure (page 1.6) • Colon cancer (page 1.7) • Gastrointestinal (GI) tract bleeding (page 1.7) • Hemorrhoids (page 1.9) • Rectal trauma or foreign body in the rectum (page 1.9) • Viral warts (page 1.10) 	<ul style="list-style-type: none"> • Penile cancer (page 1.13) • Penile constriction by a foreign body, such as an elastic band (page 1.14) • Penile injury or penile trauma (page 1.14) • Peyronie's disease (page 1.15) • Phimosis (page 1.15) • Priapism (page 1.16)
Disorders of the Breast <ul style="list-style-type: none"> • Breast cancer (page 1.10) 	Disorders of the Prostate Gland <ul style="list-style-type: none"> • Benign prostatic hyperplasia (BPH) (page 1.17) • Hematospermia (page 1.18) • Prostate cancer (page 1.18) • Prostatitis (page 1.20)
Disorders of the Penis <ul style="list-style-type: none"> • Balanitis or balanoposthitis (page 1.11) • Paraphimosis (page 1.12) 	

(continued)

Common Sexual and Reproductive Health Disorders in Men (continued)

Disorders of the Scrotum and Groin

- Hematocele (page 1.21)
- Hydrocele (page 1.21)
- Inguinal hernia (page 1.22)
- Scrotal edema (page 1.23)
- Scrotal elephantiasis (page 1.23)
- Spermatocele (page 1.24)
- Varicocele (page 1.24)

Disorders of the Skin of the Genitals

- Genital dermatitis (page 1.25)
- Genital herpes (page 1.25)
- Psoriasis (page 1.26)
- Pubic lice (page 1.27)
- Scabies (page 1.27)
- Tinea of the groin (jock itch) (page 1.28)

Disorders of the Testes

- Cryptorchidism (page 1.28)
- Epididymitis (page 1.29)

- Fournier's gangrene (page 1.31)
- Incarcerated hernia (page 1.31)
- Orchitis (page 1.32)
- Scrotal injury (page 1.33)
- Testicular cancer (page 1.33)
- Testicular torsion (page 1.34)

Disorders of the Urethra

- Epispadias (page 1.35)
- Hypospadias (page 1.36)
- Urethral carcinoma (page 1.36)
- Urethral stricture (page 1.37)
- Urethral trauma (page 1.38)
- Urethritis (bacterial) (page 1.38)
- Urethritis (chlamydial) (page 1.39)
- Urethritis (gonococcal) (page 1.40)
- Urethritis (nonchlamydial or nongonococcal [nonspecific]) (NGU) (page 1.40)
- Urinary extravasation (page 1.41)

Disorders of the Anus, Rectum, and Colon

§ Signs and Symptoms

- Anal pain
- Severe pain during defecation, with or without bleeding

Physical Examination Findings

During rectal examination, a visible crack or **fissure** (tear) in the anus

Differential Diagnosis

Anal fissure

Comments

- This condition is caused by constipation, straining during defecation, or anal probing.
- In some cases, the pain is so severe that the client is afraid to defecate and becomes constipated, which makes the stool harder and the condition even more painful.
- More than 90% of anal fissures are located in the **posterior midline position**. An anal fissure located off the midline may indicate **Crohn's disease** or an STI.
- Acute anal fissures usually heal spontaneously. Chronic anal fissures may require simple surgical treatment to reduce the pressure in the anal canal and allow the fissures to heal.
- The long-term cure rate is greater than 95%.

Management

- Give the client stool softeners.

Disorders of the Anus, Rectum, and Colon (*continued*)

- Tell the client to take warm sitz baths.
- Apply a topical cream.
- Topical application of nitroglycerin and injections of **botox** are new and experimental types of therapy.

§ *Signs and Symptoms*

- Bleeding during defecation
- Black **bowel movements**
- Change in bowel movements (either constipation or diarrhea) or in the shape of the stool

Physical Examination Findings

- In clients with anemia, obvious or occult blood in the stool
- Vague pain in the abdomen or intestinal obstruction

Differential Diagnosis

Colon cancer

Comments

- Colon cancer is one of the most common malignancies in the world, occurring especially in correlation with economic status, geographic location, and dietary exposure. For example, the consumption of refined carbohydrates and animal fats and proteins is much higher in the United States and Europe than in Africa and Asia. Generally, colon cancer is a disease of older individuals who have had little vegetable fiber in their diets or have **familial polyposis** or **chronic ulcerative colitis**.
- Most clients with colon cancer are asymptomatic.
- Clients may confuse the bleeding during defecation with bleeding from hemorrhoids.
- Clients at **special risk** (because they have either blood in the stool or **polyps**) can be followed up with **rectosigmoidoscopy** because early diagnosis increases their survival.
- Tests for colon cancer include a barium enema, a **rigid** or **flexible endoscopy** with biopsy, and CEA and CAT scans.

Management

- Refer the client to a surgeon.
- Treat the client with chemotherapy, radiation, and **immunotherapy**.

§ *Signs and Symptoms*

- Bleeding during defecation
- Black, liquid, tarry, and smelly bowel movements
- Lightheadedness, dizziness, and syncope

Physical Examination Findings

With chronic bleeding, visible pallor, **dyspnea**, and **exertional weakness** (from iron-deficiency anemia)

Differential Diagnosis

Gastrointestinal (GI) tract bleeding

Disorders of the Anus, Rectum, and Colon (*continued*)

Comments

- **THIS IS A MEDICAL EMERGENCY.** This condition can be life threatening. The overall mortality for GI tract bleeding is high.
- GI tract bleeding is one of the most common reasons for admission to a hospital. Although the specific bleeding lesions may vary considerably, the initial therapeutic and diagnostic approach to a client remains largely the same. The condition usually produces dramatic clinical signs and symptoms that bring a client to a service provider's urgent attention.
- **Hematemesis** is vomiting of obvious (and usually extensive) blood or bloody material, indicating bleeding from the upper GI tract. But blood entering the GI tract from some high lesion, such as a lesion on the esophagus, stomach, or duodenum, and occasionally even from the gingiva and pulmonary structures, may not be obvious. Hematemesis is caused by **peptic ulcer, gastritis, esophageal varices** or lesions, stomach cancer, benign tumors, traumatic postoperative bleeding, and swallowed blood from lesions in the nose, mouth, or throat. Diagnosis of hematemesis is usually made from the client's history and the physical examination findings; an endoscopic or ear, nose, and throat examination may be required to confirm the diagnosis.
- **Meletemesis** is closely related to hematemesis; it has the same causes and is diagnosed the same way. Meletemesis is vomiting of material with gastric juice for at least two hours, which changes the bright red blood present with hematemesis to a brownish color. Clients who present with vomit that looks like "coffee grounds" are usually bleeding at a slower rate than those who have obviously bloody **emesis**. But the same cause may present as either type of bleeding.
- **Melena** is darkening of the stool by blood pigments, and indicates **proximal** bleeding from the GI tract, usually from the **distal** small bowel or slow bleeding from the proximal colon, or even bleeding from the upper GI tract. Unlike hematemesis, melena is not characterized by obvious, extensive blood. However, melena is diagnosed the same way.
- **Hematochezia** is obvious loss of blood through the anus. Hematochezia indicates bleeding from the lower GI tract, usually from the distal small bowel or a **superficial** lesion in the **sigmoid colon** or **anorectal junction**. Some clients with **hemodynamically significant** hematochezia have **active bleeding** from the upper GI tract and have an **accelerated transit time**. Hematochezia is caused by colon cancer or polyps, **ulcerative colitis, diverticulitis**, large hemorrhoids, anal tears, and Crohn's disease. Diagnosis of hematochezia requires a digital rectal exam, **proctoscopy, endoscopy**, and barium enema, or a CAT scan.

Management

- Management varies depending on the cause of bleeding and the amount and rate and amount of blood loss. If the amount and rate of blood loss cause hemodynamic instability, resuscitative measures, including intravenous line and volume replacement, will be required.

§ *Signs and Symptoms*

Bleeding during defecation, with or without pain

Physical Examination Findings

- Dilated veins at the **anal verge**
- Normal perineal and rectal examination

Disorders of the Anus, Rectum, and Colon (continued)

Differential Diagnosis

Hemorrhoids

Comments

- **THIS IS A MEDICAL EMERGENCY** when a painful, bluish-colored mass is present at the anal verge. **Thrombosis** of external hemorrhoids (see below) is usually seen in young men and is often related to strenuous exercise. This type of exercise results in a temporary increase in intra-abdominal pressure, as well as more pressure on the dilated hemorrhoid veins, which makes them larger, with more stasis. As a result, more blood is likely to clot or thrombose in them. If the pain does not subside within 48 hours, the **thrombosed hemorrhoid** should be **excised** under local anesthesia.
- This condition is caused by constipation, straining during defecation, prolonged sitting, **cirrhosis**, or **anal probing**.
- Hemorrhoids located deep in the anus, above the **dentate line**, are called *internal hemorrhoids*; hemorrhoids located below this line are called *external hemorrhoids*. External hemorrhoids rarely cause symptoms by themselves, but they may eventually be associated with pain, itch, and bleeding. External hemorrhoids increase in size when prolapsing internal hemorrhoids are present because of increased pressure from the internal hemorrhoids. In addition, the anal sphincter contracts and reduces blood flow back into the general circulation, which confines it to the hemorrhoids.
- Hemorrhoids are usually painless unless they are accompanied by an anal fissure or anal abscess.
- Acute **prolapse** and thrombosis of internal hemorrhoids are extremely painful and cause **edema** and inflammation. The entire circumference of the anus appears to protrude.

Management

- Give the client stool softeners.
- Tell the client to take warm sitz baths.
- Apply a topical cream.
- If bleeding continues, refer the client to a surgeon.

§ Signs and Symptoms

Systemic symptoms, including nausea, vomiting, and fever

Physical Examination Findings

- Bleeding during defecation
- **Abdominal mass**
- Pelvic abscess
- **Frank peritonitis**

Differential Diagnosis

Rectal trauma or foreign body in the rectum

Comments

- **THIS IS A MEDICAL EMERGENCY** when the rectal wall is perforated. If the condition is not treated promptly, it can lead to bleeding, pelvic abscess, **peritonitis**, and death. Mortality rises dramatically if the injury is penetrative, especially above the **levator ani**, and causes infection.

Disorders of the Anus, Rectum, and Colon (*continued*)

- This condition is caused by anal rape or foreign objects placed in the rectum for sexual pleasure, such as an enema tip, a thermometer, condoms, and dildos.

Management

- Refer the client to a surgeon.
 - Treatment usually requires surgery (a **colostomy** or **exteriorization**).
-

§ *Signs and Symptoms*

- Anal pruritis
- Bleeding

Physical Examination Findings

Small, discrete **excrescences** on the perianal skin or just inside the anal canal

Differential Diagnosis

Viral warts

Comments

- This condition is caused by **human papillomavirus (HPV)**.
- Women who have anal sex and men who have sex with other men have a high incidence of rectal infection and are at high risk for developing viral warts.

Management

- Apply 25% **podophyllin** solution in compound benzoin tincture, *or*
 - Refer the client to a surgeon for **fulguration** with **electrocautery** or surgical excision.
-

Disorders of the Breast

§ *Signs and Symptoms*

Firm mass (either painless or painful) in the breast area

Physical Examination Findings

- Distortion of the shape of the breast and/or nipple
- Change in the appearance of the skin, which may make it look like the skin of an orange

Differential Diagnosis

Breast cancer

Comments

- This condition is rare in men, but it does exist.
- Breast cancer has a higher fatality rate in men than in women because:
 - Breast cancer tends to be diagnosed at a later stage in men than in women
 - The **malignant cells** travel a shorter distance in men than in women before reaching the chest wall and **lymphatics**
- Breast cancer in men may be difficult to distinguish from **gynecomastia** (benign glandular enlargement of the breast, which is usually **bilateral**), **lipoma**, or a **cyst**.

Management

Refer the client to a surgeon for biopsy and possible removal of the mass.

Disorders of the Penis

§ *Signs and Symptoms*

- Pain during urination
- Swollen, red, and painful glans (the head of the penis) and **foreskin**

Physical Examination Findings

- In severe cases, yellow **pustules** on the **glans** and foreskin that leave red, **eroded** areas when they break
- **Satellite pustules** on the shaft of the penis

Differential Diagnosis

Balanitis or balanoposthitis

Comments

- Balanitis is a condition in which the glans is inflamed and infected (see Photograph 1 in Appendix H on page H.3); balanoposthitis is a condition in which the foreskin is inflamed and infected.
- These conditions are more common in uncircumcised men with poor hygiene, but they may also appear in uncircumcised young boys.
- In severe cases, the client may present with phimosis (see page 1.15) and **urinary retention**.
- These conditions are usually caused by infections, but they can also be due to noninfectious causes.
 - Infections include:
 - Bacteria
 - Fungus
 - Herpes simplex
 - Protozoa
 - Syphilis
 - Viral warts
 - Noninfectious causes include:
 - Diabetes
 - Latex allergy (see Photograph 2 in Appendix H on page H.3)
 - Lichen planus**
 - Psoriasis
 - Trauma to the glans

Management

- Retracting the foreskin and cleaning the genital area are the most important parts of treatment.
- In fungal infections, apply an antifungal cream, such as nystatin, miconazole, or clotrimazole, to the penis.
- Apply a low-potency hydrocortisone cream, such as hydrocortisone 1%, in addition to **specific antimicrobial therapy**.
- In severe cases, wrap the glans in gauze and soak the penis in warm water for 10 to 15 minutes.

Disorders of the Penis (*continued*)

- Inspect the **urethral meatus** for **stricture**.
- Retract the foreskin to ensure that narrowing of the foreskin does not occur as a result of the infection.
- Recurrent balanoposthitis may require circumcision.
- When clients present with urinary retention, also consider rectal mass, incontinence, **neurogenic bladder**, **bladder neoplasm**, bladder stone, use of **sympathomimetic drugs**, use of **anticholinergic drugs**, bladder cancer, **metastatic disease**, cystitis, urethritis (see page 1.38), acute prostatitis (see page 1.20), and chronic prostatitis (see page 1.20).

§ *Signs and Symptoms*

Swollen, painful penis

Physical Examination Findings

- Foreskin that is trapped behind the glans
- Glans that is engorged and purple because of constriction by the foreskin, preventing **venous return**
- Asymmetric swelling of the foreskin behind the glans that may look like **penile skin edema**

Differential Diagnosis

Paraphimosis (see Photograph 3 in Appendix H on page H.3)

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to **ischemia** of the penis and then to **gangrene** or **necrosis** of the glans and foreskin.
- The rapid formation of edema within a few hours may prevent manual correction of this condition.
- Paraphimosis is the entrapment of the glans by a **phimotic foreskin**, a band of the foreskin behind the glans. It usually occurs after cleansing of the glans (which requires prior foreskin retraction, after which the foreskin fails to go back to its usual position and act as a hood for the glans) or catheter insertion (which also requires prior foreskin retraction). After foreskin retraction, the constricting **phimotic ring** causes progressive edema, impairs venous return, and threatens the **viability** of the glans.
- The client may have a history of foreskin retraction.
- A **debilitated** and uncircumcised client may not have a history of foreskin retraction.
- Service providers must remember to return the foreskin to its normal anatomic position after retraction for catheter insertion.

Management

- After providing adequate local anesthesia to the penis, attempt **manual reduction**: Apply gentle, steady pressure on the glans with the thumbs, while placing the other fingers of both hands behind the phimotic ring and foreskin. Push the glans down, back, and inside the ring of the constricting foreskin.
 - Refer the client to a surgeon for circumcision (or an emergency **dorsal-slit procedure**) if the foreskin cannot be returned to its normal position.
-

Disorders of the Penis (*continued*)

§ *Signs and Symptoms*

- One or more lesions on the penis
- Inguinal node enlargement

Physical Examination Findings

- Red, **plaque**-like lesions on the glans or the shaft of the penis
- Precancerous dermatological lesions on the penis

Differential Diagnosis

Penile cancer

Comments

- This condition, which is also known as **squamous cell carcinoma of the penis** (see Photograph 6 in Appendix H on page H.4), while rare, is seen mostly in older uncircumcised men and is associated with poor hygiene.
- Most penile cancers originate near the corona of the glans.
- Penile cancer extends locally, is prevented from deep invasion by the fascia layers of the penis, and is late to **metastasize**. Metastasis occurs through the penile lymphatic nodes to the inguinal nodes.
- Penile cancer has a low mortality rate if it is diagnosed quickly and has a high mortality rate if it is not.
- The appearance of penile cancer is quite variable. It often has a wart-like appearance.
- Lesions that are persistent or resistant to treatment should be suspected to be cancerous, particularly those that are ulcerated.
- **Carcinoma in situ** (**Bowen's disease**, erythroplasia of Queyrat) presents as a red, plaque-like lesion on the glans or the shaft of the penis.
- Precancerous dermatological lesions of the penis include leukoplakia, atrophy of the glans and foreskin, and a lesion associated with HPV.
- A correlation between HPV and the development of penile (or rectal) cancer may exist.

Management

- **Biopsy** any lesion that does not resolve in the expected period of time.
- Refer the client to a specialist for further management.
- Treatment may require surgery (a **penectomy**) and/or chemotherapy. Most components of sexual function will be preserved if diagnosis is made early.
- Talk with the client about what to expect, inform the client's partner(s) that the client will likely be able to continue to function sexually, and discuss ways that they can achieve sexual stimulation and pleasure.
- Ongoing follow-up medical care will be necessary.
- During follow-up visits, assess how the client and his partner(s) are adjusting after surgery. Assess the client for signs of depression.

§ *Signs and Symptoms*

- Prolonged, painful erections, usually in the absence of sexual arousal
- Sustained, painful erections, even after ejaculation

Disorders of the Penis (*continued*)

Physical Examination Findings

- Congested blood in the corpora cavernosa (as in normal erections)
- Flaccid corpus spongiosum and glans (in contrast with normal erections)

Differential Diagnosis

Penile constriction by a foreign body, such as an elastic band

Comments

This condition is seen mostly in boys and adults with below-average intelligence.

Management

Remove the foreign body from the penis.

§ *Signs and Symptoms*

- Swollen, painful penis
- Swelling and bruising of the penile area
- Blood in the urine

Physical Examination Findings

Black-and-blue, very swollen penis

Differential Diagnosis

Penile injury or penile trauma

Comments

- Penile injuries include penile amputation, penile fracture, blunt injuries, and crush injuries; penile trauma can result from various means, including a constricting rubber band, vigorous sexual intercourse, and direct trauma.
- Penile fracture can result from sexual intercourse and involves the rupture of the tunica albuginea.
- This condition may be caused by entrapment of the penis in a zipper, which most often occurs in young boys.

Management

- Most clients require a retrograde urethrogram to rule out urethral injury.
 - Management of the condition depends on the specific type of injury or trauma.
 - Refer the client to a surgeon if penile swelling is significant and seems to indicate extensive tissue damage.
 - If the penis is entrapped in a zipper, the zipper can be unzipped after providing adequate anesthesia to the penis.
-

§ *Signs and Symptoms*

- Prolonged, painful, curved erections that make sexual intercourse difficult or impossible
- No pain when the penis is not erect

Physical Examination Findings

Palpable, dense, fibrous plaques on the lower part of the shaft of the penis

Disorders of the Penis (*continued*)

Differential Diagnosis

Peyronie's disease

Comments

- This condition is a fibrous thickening of the tunica albuginea.
- It may occur in conjunction with other fibrosing disorders, including Dupuytren's contracture of the flexor tendons of the hand (in the palm), aponeurotic plantar fibrosis (in the foot), and knuckle pads on the extensor surface of finger joints.
- It is most common in white men of Celtic origin.
- Spontaneous remission of symptoms occurs in about 50% of cases. Usually the pain resolves, but the curvature persists.

Management

- If the client is asymptomatic, fibrous-tissue formation does not require treatment.
- Treatment may require surgery to remove the fibrous tissue and graft a patch onto the affected area, but this may result in further scarring and worsen the condition.
- Refer the client to a urologist if necessary.

§ *Signs and Symptoms*

- Inability to retract the foreskin
- Narrow or narrowing of the opening of the foreskin
- Penile discharge
- Urinary difficulties, including urine filling the foreskin during urination

Physical Examination Findings

- Difficulty retracting or inability to retract the foreskin to reveal the glans because of the narrowed foreskin
- Urine trapped under the foreskin, resulting in swelling and inflammation of the foreskin
- Evidence of poor hygiene

Differential Diagnosis

Phimosis

Comments

- **THIS CAN BE A MEDICAL EMERGENCY** in some cases. If the condition needs to be treated and is not managed promptly, it can lead to kidney damage, urinary tract obstruction, and death.
- This condition is a narrowing of the opening of the foreskin, which prevents the foreskin from being retracted.
- **Physiologic phimosis** is present until normal adhesions between the foreskin and the glans separate. As normal secretions accumulate and there is sloughing of the skin, **smegma** (see Photograph 5 in Appendix H on page H.4) accumulates. This discharge may be confused with infectious penile discharge.
- **Pathologic phimosis** occurs when the foreskin cannot be retracted after puberty or when the foreskin could previously be retracted. In severe cases, the opening of the foreskin may be completely closed, inhibiting urination and leading to urinary tract obstruction.

Disorders of the Penis (*continued*)

(In Africa, this is sometimes also caused by a milky fluid from the leaves of certain shrubs. School-age boys sprinkle some of this fluid under the foreskin to make their penises bigger, which stay enlarged for a couple of days because of severe inflammation, especially of the foreskin. This practice occasionally results in the boys' acute inability to pass urine and sometimes requires surgery for emergency **urinary diversion**.)

- In boys, the foreskin may not be completely retractable until late adolescence. There is no need for concern if the foreskin is not completely retractable as long as the urethral meatus is visible and nothing is preventing urination.
- Constriction of the opening of the foreskin may result from edema, inflammation, fibrosis, or scarring.
- If there is evidence of infection (edema, **erythema**, or discharge), treat with a topical broad-spectrum antibiotic and warm soaks until the infection resolves.

Management

- Phimosis needs to be treated if it is associated with recurrent inflammation or urinary problems.
- If the client is unable to urinate, gently cleanse the opening or the tip of the foreskin; apply a topical anesthetic gel, such as viscous lidocaine 1–2%; and wait 10 minutes for the anesthetizing effect. Gently dilate the opening of the foreskin with graduated sounds or dilators until the foreskin is sufficiently open and the risk of blockage is resolved. If the client continues to be unable to urinate, he may need to have a catheter inserted through the urethral meatus into the bladder to relieve the obstruction.
- Instruct the client to gently retract the foreskin several times a day to ensure that strictures and narrowing do not occur.
- Instruct the client about the importance of good penile hygiene.
- In severe cases, recurrent inflammation or urinary difficulties require surgery. Refer the client to a surgeon for circumcision (or a dorsal-slit procedure) if necessary.

§ *Signs and Symptoms*

- Prolonged, painful erections, usually in the absence of sexual arousal
- Sustained, painful erections, even after ejaculation

Physical Examination Findings

- Congested blood in the corpora cavernosa (as in normal erections)
- Flaccid corpus spongiosum and glans (in contrast with normal erections)

Differential Diagnosis

Priapism (see Photograph 4 in Appendix H on page H.3)

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to necrosis of the tissue and then to permanent erectile dysfunction.
- Priapism is a persistent erection in the absence of sexual excitement or desire.
- It is usually caused by taking drugs that are used to treat erectile dysfunction. It is also caused by such disorders as leukemia, pelvic tumors, pelvic infection, penile trauma, sickle-cell anemia (the most common cause of priapism in boys), and spinal cord trauma, and by the use of alcohol, antihypertension agents, and cocaine.

Disorders of the Penis (*continued*)

Management

- Refer the client to a urologist immediately.
 - Oral terbutaline may be beneficial.
-

Disorders of the Prostate Gland

§ *Signs and Symptoms*

- Urinary retention or difficulty urinating
- Urinary hesitancy, with decreased force and size of the urinary stream
- **Incontinence**
- **Posturination dribble**
- **Hematuria**
- **Nocturia**

Physical Examination Findings

- During rectal examination, an enlarged, rubbery, nontender prostate gland
- Asymmetric enlargement of the prostate gland
- Distended bladder
- Client discomfort when pressure is applied suprapubically to the bladder

Differential Diagnosis

Benign prostatic hyperplasia (BPH)

Comments

- This condition (also known as benign prostatic hypertrophy) is the enlargement of the prostate gland, which causes urinary difficulties. It is usually seen in men over age 40.
- BPH causes varying degrees of **bladder-outlet obstruction**. Longstanding obstruction can lead to **decompensation of the bladder**, with **bladder diverticula**, **residual urine**, incontinence, urinary tract infection, hematuria, and, ultimately, renal failure.
- The condition is often accompanied by **cystitis**.
- BPH and prostate cancer often occur together.
- The **prostate-specific antigen (PSA)** is moderately elevated in 30% to 50% of men with BPH.

Management

- Catheterization will provide immediate relief.
 - Explain to the client that medical and/or surgical management is possible, but that this needs to be provided and supervised by a specialist.
 - Treatment for BPH involves the use of **antiandrogens**, which can reduce sexual drive and cause **erectile dysfunction**.
 - Explain to the client that after surgery, his prognosis for maintaining sexual function is excellent, but that **retrograde ejaculation** is common in a small proportion of men.
 - Refer the client to a urologist for surgery.
-

Disorders of the Prostate Gland (*continued*)

§ *Signs and Symptoms*

- Bloody semen at orgasm, without associated pain
- Red, dark blue, or brown ejaculate

Physical Examination Findings

- Minimal physical findings
- Abnormal ejaculate

Differential Diagnosis

Hemospermia

Comments

- This condition is thought to be caused by a ruptured blood vessel. It usually is not associated with a disease or illness, and is rarely, but sometimes, caused by prostate cancer.

Management

- Reassure the client that with isolated hemospermia, normal **urinalysis**, and a normal digital rectal examination, the risk for prostate cancer is low.
- If the client has persistent hemospermia (hematuria or abnormal rectal findings), refer the client to a specialist for invasive procedures such as **cystoscopy** or **transurethral ultrasound**.

§ *Signs and Symptoms*

- Urinary retention or difficulty urinating
- Incontinence
- Hematuria
- Weight loss, fatigue, and generalized weakness
- Back, leg, and perineal pain

Physical Examination Findings

During rectal examination, a diffuse, hard texture of the prostate gland or hard nodule(s)

Differential Diagnosis

Prostate cancer

Comments

- This condition is an adenocarcinoma of the prostate gland.
- Its incidence rises steadily with age; prostate cancer is rare in men under age 40.
- The causes of prostate cancer are unknown, but they may include genetic predisposition, hormonal influences, dietary and environmental factors, and infectious agents.
- Prostate cancer varies widely in biological behavior and **metastatic potential**; many cancers are unrecognized during the client's lifetime.
- Metastatic spread to the bony pelvis, ribs, and vertebrae may cause backache, bone pain, **pathologic fractures**, **neurological symptoms**, or weakness.
- Most clients with prostate cancer are asymptomatic.
- Some clients may present with spinal-cord compression as the first indication of prostate cancer.

Disorders of the Prostate Gland (*continued*)

- **Prostatitis** (especially with chronic inflammation), **prostatic tuberculosis**, **calculi**, **BPH**, and **prostatic cysts** should also be considered.
- PSA is elevated in 95% of men with prostate cancer.

Management

- The diagnosis is made with the help of a **needle biopsy** of the prostate gland, a **trans-rectal ultrasound (TRUS)**, and an elevated serum PSA. PSA levels decline after successful treatment and rise again with recurrence.
- Management options are watchful waiting, radical surgical **prostatectomy**, **radiation therapy**, **hormone therapy**, and **chemotherapy**:
 - For men over 70 with slow-growing tumors, other significant illnesses, or fear of the side effects of recommended therapies, watchful waiting is the management option of choice.
 - Radical surgical prostatectomy involves removal of the prostate and some of the tissue around the gland, which can result in **impotence** and incontinence.
 - With radiation therapy, impotence and urinary incontinence occur slightly less often than with surgery; however, damage to the rectum is a potential complication. Cryosurgery is less invasive.
 - Hormone therapy slows or prevents the growth of cancer cells by reducing testosterone, which stimulates their growth; this can be achieved by administering female hormones (estrogen) or removing the testes, both of which may involve the risk of impotence and loss of sexual desire.
 - Most prostate cancers are hormone-dependent, and nearly 75% of men with metastatic prostate cancer respond to various forms of **androgen** deprivation. This may require the use of estrogens, LHRH agonists, ketoconazole, aminoglutethamide, glucocorticoids (e.g., prednisone), or antiandrogens, as well as **orchiectomy**.
 - Men who are impotent have normal sensations, can have a normal sex drive, and can achieve a normal orgasm.
- Sexual function may be assisted to return to normal, with newer technologies (where available).
- Refer the client to a urologist if necessary.

§ **Signs and Symptoms**

- Pain in the pelvic area
- Urinary retention or difficulty urinating
- **Dysuria**, frequent urination, or urgent urination
- Pain during defecation
- Pain during and after ejaculation
- Acute illness, with fever, chills, weakness, and malaise
- Pain in the lower back, rectal area, or perianal area
- "Sitting on a hot coal" sensation in the perineum

Physical Examination Findings

- During rectal examination, an inflamed, swollen, tender, warm, and firm prostate gland
- Many **leukocytes** found through **urinalysis**, especially after the rectal examination
- In chronic prostatitis, a normal, less tender, **boggy**, or **focally indurate** prostate gland

Disorders of the Prostate Gland (*continued*)

Differential Diagnosis

Prostatitis

Comments

- This condition is an inflammation of the prostate gland.
- It is caused by an **ascending infection** from the urethra, by cystitis, or by **hematogenous spread**. Prostatitis is usually caused by **coliform bacteria**, but can also be caused by **gonococci, enterococci, and trichomonas**.
- Micro-abscesses may form early; gross abscesses are a late complication.
- **Bacterial prostatitis** may be acute or chronic. Acute bacterial prostatitis is usually accompanied by acute bacterial cystitis. Acute bacterial prostatitis is more common in young men, and chronic bacterial prostatitis is more common in older men. **Pyelonephritis** or **epididymitis** may also develop.
- **Nonbacterial prostatitis** tends to be chronic. Increased numbers of leukocytes are present in prostatic secretions, but no **etiologic organisms** can be isolated. Symptoms from this type of prostatitis are usually mild.
- **Urethral stricture** predisposes clients to recurrent prostatitis.
- Clients who present with acute urinary retention, infection, and obstruction are at high risk for **sepsis**.
- Diagnosis is made by careful examination of the abdomen, by bladder palpation, and by gentle rectal examination to check for tender prostate.
- Examination of a divided sample of urine and urethral discharge can help distinguish between urethritis, cystitis, and prostatitis.
- During diagnosis, it is important to rule out perirectal or bladder pathology, such as acute **recto-sigmoid diverticulitis, interstitial cystitis, carcinoma in situ** of the bladder, anal fissure, thrombosed hemorrhoid, or **prostatic abscess**.
- The rectal examination may be painful for the client because of the inflamed prostate gland.
- Prostate massage is contraindicated because it may spread bacteria and cause **bacteremia**.

Management

- Tell the client to drink plenty of fluids, get plenty of rest, and take hot sitz baths.
 - Give the client an analgesic or an anti-inflammatory agent for pain and a stool softener.
 - Prescribe an organism-specific antibiotic, which is the primary component of treatment.
 - If the client has a prostatic abscess, surgical drainage and antibiotics are required.
 - Explain to the client that he needs to have surgery.
 - Explain to the client that he will have to return in two weeks for a follow-up evaluation, and again in four to six weeks after he completes the course of antibiotics for a repeat prostate examination and urinalysis.
 - Refer the client to a urologist for surgery.
 - If the client shows **systemic signs** of sepsis, he should be admitted to a hospital.
 - If possible, refer clients who are over age 50 with acute prostatitis to a urologist because acute prostatitis is often associated with BPH and has a high recurrence rate.
 - If possible, refer clients with chronic prostatitis to a urologist.
-

Disorders of the Scrotum and Groin

§ *Signs and Symptoms*

- Painful scrotal swelling
- Scrotal trauma

Physical Examination Findings

- Mass, similar to a hydrocele (see below), that does not **transilluminate** (see page 3.11)
- Discolored scrotal skin

Differential Diagnosis

Hematocele

Comments

- This condition is blood or a blood clot within the potential space between the two layers of the **tunica vaginalis**.
- It is usually caused by scrotal trauma and may be caused by a scrotal tumor.
- A hematocele can accompany a **testicular rupture**.
- The transillumination test assesses for the presence of fluid in the scrotal sac by transilluminating the scrotum with a penlight. The fluid should be pink, not dark or red. Dark or red fluid suggests either a scrotal mass, a testicular mass, or blood in the scrotum. Transillumination is less successful for men with dark pigmentation.

Management

Refer the client to a surgeon if he has no recent history of scrotal trauma.

§ *Signs and Symptoms*

- Gradual, painless scrotal swelling
- Sensation of scrotal heaviness that radiates to the genital area

Physical Examination Findings

- Round, cystic mass located around the testes and epididymis
- Definitive palpation of the testes is obscured
- During transillumination, a visible, translucent mass

Differential Diagnosis

Hydrocele (see Photograph 7 in Appendix H on page H.4)

Comments

- This condition is an accumulation of sterile fluid in the tunica vaginalis. It is the most common cause of **nonacute intrascrotal swelling**.
- A hydrocele can be **congenital**. It also can be caused by an overproduction of fluid related to the inflammation of the testes or appendages or to testicular cancer (see page 1.33).
- The condition can develop rapidly in response to a scrotal injury, radiation treatment, **acute nonspecific** or **tuberculous epididymitis**, or orchitis (see page 1.32).
- A chronic hydrocele can develop gradually in middle-aged and older men.

Disorders of the Scrotum and Groin (*continued*)

- In a hydrocele in a young boy, **congenital failure** of the tunica vaginalis to **obliterate** after birth allows communication between the tunica vaginalis and the peritoneum. This is a “communicating hydrocele.” Parents usually say that the scrotal swelling disappears when the boy sleeps. A pediatric hydrocele is “communicating” and decompressing when the client is supine (i.e., a **communicating hernia**).
- A hydrocele may result from epididymitis, trauma, tumor, or prior surgery.

Management

- If the hydrocele is not excessively large and bothersome, surgery is not necessary.
 - Refer the client to a surgeon if a testicular tumor is the underlying etiology.
-

§ *Signs and Symptoms*

- Scrotal swelling
- More prominent scrotal swelling when the client coughs, lifts objects, or increases intra-abdominal pressure

Physical Examination Findings

- Enlarged scrotum, usually unilaterally
- With a bowel that is not **strangulated**, a visible, warm mass, with **audible peristaltic sounds** or **palpable vibrations**
- **Reduction of the bowel** through the **inguinal defect**

Differential Diagnosis

Inguinal hernia (see Photograph 8 in Appendix H on page H.5)

Comments

- **THIS IS A MEDICAL EMERGENCY** when the inguinal hernia is strangulated or incarcerated (see page 1.TK). If the condition is not treated promptly, it can lead to bowel necrosis resulting from impaired circulation, with **bowel perforation**, peritonitis, and death.
- The condition is a protrusion of the contents of the abdomen, often the bowel, through the inguinal canal into the scrotal sac.
- Developing an **incarcerated hernia** is most common during the first year of life.
- With a hernia, the spermatic cord *cannot* be palpated above the mass, but with a hydrocele or a hematocele, the spermatic cord *can* be palpated above the mass.

Management

- Refer the client to a surgeon immediately if the hernia appears to be strangulated or incarcerated.
 - If no signs of strangulation are apparent (the bowel is warm and **peristalsis** is present), reduce the hernia manually by gently pulling up on its contents while the client is supine.
 - Refer the client to a surgeon for a **herniorrhaphy**.
 - Explain to the client that routine postoperative follow-up is indicated.
-

Disorders of the Scrotum and Groin (*continued*)

§ *Signs and Symptoms*

Symmetrical scrotal swelling

Physical Examination Findings

Edema of the scrotal tissue and penis

Differential Diagnosis

Scrotal edema

Comments

- This condition is an accumulation of fluid within the scrotal sac.
- It is caused by **abdominal lymphatic** or **venous compression**, an **intra-abdominal tumor**, **congestive heart failure**, cirrhosis with **ascites**, **nephrotic syndrome**, **filariasis**, or **idiopathic lymphedema**.
- Scrotal edema in children may be caused by an allergic reaction to an article of clothing, a powder, a lotion, or a chemical, or by **angio-neurotic edema**.

Management

- Elevate the scrotum.
 - Refer the client to a surgeon for treatment of the underlying cause.
-

§ *Signs and Symptoms*

Scrotal swelling

Physical Examination Findings

- Enlarged, painless scrotum
- During palpation, a solid firmness of the scrotal skin
- Enlargement of the legs, arms, or breast

Differential Diagnosis

Scrotal elephantiasis (see Photograph 9 in Appendix H on page H.5)

Comments

- This condition is an enlarged, painless scrotum.
- It is caused by filaria worms that infest the lymphatic system, resulting in inflammation and scarring, which eventually obstruct the normal flow of the lymph. The larvae of the filaria worm are transmitted by mosquito bites.
- Scrotal elephantiasis presents initially as a slowly developing enlargement of the scrotum with soft and **pitting** edema, with or without pain. Later, the scrotal skin thickens, the edema becomes nonpitting, and a solid firmness of the skin develops, along with a significantly enlarged scrotum.
- The enlargement of the scrotum can reach incapacitating sizes.
- The condition is found mostly in tropical and subtropical areas.

Management

- Prescribe antifilaria drugs (diethylcarbamazine, ivermectin) to kill the worm.
 - Explain to the client that surgery to excise the redundant scrotal tissue is necessary.
 - Reduce the dependency (hanging) of the scrotum by supporting it with firm bandaging.
 - Refer the client to a surgeon.
-

Disorders of the Scrotum and Groin (*continued*)

§ *Signs and Symptoms*

Small, painless scrotal swelling

Physical Examination Findings

- Small, cystic mass based in the epididymis
- During transillumination, a soft, freely mobile, lucent mass
- In the chronic state, a firm mass

Differential Diagnosis

Spermatocele (see Photograph 10 in Appendix H on page H.5)

Comments

- This condition is a benign, circular, nontender mass that occurs next to the epididymis in the **upper pole** of the testes and often contains sperm.
- Most spermatoceles are small, less than 1 cm in size, but some can be as large as 10 cm.
- A large spermatocele may be difficult to differentiate from a hydrocele and may feel like a third testicle.

Management

- If a spermatocele causes pain or discomfort, a **spermatocelectomy** is required.
 - Refer the client to a surgeon.
-

§ *Signs and Symptoms*

Scrotal swelling, usually chronic and on the left side

Physical Examination Findings

- Scrotum that feels like a “bag of worms” because of its prominent, slippery vessels
- Small “bag of worms” felt just above the testicle, along the **spermatic cord**

Differential Diagnosis

Varicocele

Comments

- This condition is a collection of **varicose** veins in the scrotal sac.
- A varicocele more commonly occurs on the left side because the left testicular vein drains into the left **renal vein**, whereas the right testicular vein drains into the **inferior vena cava**.
- Nearly 20% of men have a left varicocele of some degree. An acute appearance of a varicocele, especially on the right side, should prompt further evaluation for the presence of renal cancer, renal vein thrombosis, or vena cava obstruction.
- The condition is associated with infertility.
- A client who presents with a varicocele of recent or rapid onset, especially on the right side, should be evaluated for kidney cancer, which might be occluding the renal vein.
- A varicocele is usually visible when the client is in an upright position.

Management

- Refer clients with suspected testicular cancer (see page 1.33) to a urologist.
 - Varicocele ligation surgery involves tying of the veins.
-

Disorders of the Skin of the Genitals

§ *Signs and Symptoms*

- Burning or warm sensation in the genital area
- Itching and red rash in the genital area
- Swelling of the genital area
- Stinging sensation in the genital area
- **Vesicles** in the genital area

Physical Examination Findings

- Redness in the genital area
- Possible thickening of the skin in the genital area
- Possible open **ulcers** or moist areas of the genital skin

Differential Diagnosis

Genital dermatitis

Comments

- This condition is caused by inflammation of the skin in the genital area from an **allergen**. Allergic reactions commonly occur after contact with soaps, spermicides, latex, perfumed lubricants, detergents, fabric softeners, nylon undergarments, and topical medications.
- Symptoms usually begin one to two days after exposure to the allergen.
- A client with dark pigmentation may have **hyperpigmentation** rather than redness.
- Physical examination findings may be due in part to the client's scratching of the affected area.

Management

- Remove the allergen.
- Apply cold **compresses** and/or topical steroids to the affected area.
- Prescribe oral medication (steroidal or nonsteroidal anti-inflammatory medication).

§ *Signs and Symptoms*

- Blisters or ulcers on the mouth, lips, genitals, anus, or surrounding areas
- Burning or pain during urination
- Itching or tingling in the genital area

Physical Examination Findings

Inguinal lymphadenopathy that may present two to three weeks after the onset of symptoms

Differential Diagnosis

Genital herpes (see Photograph 11 in Appendix H on page H.6)

Comments

- Complications of this condition include aseptic meningitis and **encephalitis**.
- Initial lesions are painful vesicles with surrounding erythema that can cause shallow ulcers.

Disorders of the Skin of the Genitals (*continued*)

- There is a recurrence in 90% of clients with genital herpes during the first year of infection.
- Even though clients can be asymptomatic, they can still infect others, even when they “shed the virus” (some viruses can fall off or leave the body).

Management

- This condition is incurable, but the lesions can be suppressed with antiviral medications.
- Instruct the client to follow general supportive measures:
 - ♦ Sitting in a bathtub or basin filled with warm water and some baking soda two times a day.
 - ♦ Keeping the sores and the areas around them clean and dry.
 - ♦ Using pain relievers, such as acetaminophen or aspirin.
- Counsel the client on the importance of compliance with treatment, follow-up visits, **partner management**, and the use of condoms.

For more information about the management, treatment, and prevention of genital herpes, see Appendix B on page B.4.

§ *Signs and Symptoms*

- Burning in the genital area
- Itching and red rash in the genital area
- Swelling in the genital area

Physical Examination Findings

- Red, scaly papules that coalesce to form round-to-oval plaques
- Scales are **adherent** and silvery white, and reveal **bleeding points** when removed (**Auspitz’s sign**)

Differential Diagnosis

Psoriasis

Comments

- This condition is an excess of skin cells that can cause red, scaly patches that can affect various parts of the body, including the genitals.
- Its cause is unknown.
- Psoriasis usually develops in such areas as the elbows, knees, scalp, **gluteal cleft**, fingernails, and toenails.
- Typical psoriatic plaques with white scale can appear on a circumcised penis but do not form on an uncircumcised penis (this penis is covered by a foreskin).
- The client may also complain of arthritis.

Management

- Prescribe a topical cream that contains steroids.
 - The client may need systemic treatment and light therapy for extensive involvement.
 - Refer the client to a dermatologist if necessary (if the condition worsens or does not respond to treatment).
-

Disorders of the Skin of the Genitals (*continued*)

§ *Signs and Symptoms*

- Lesions in the genital area
- Severe itching in the genital area

Physical Examination Findings

Erythematous papules that may be **hemorrhagic**

Differential Diagnosis

Pubic lice

Comments

- This condition is caused by a parasite that may migrate to other hairy areas of the body, such as the eyebrows and eyelids.
- The client may indicate that family members also have severe itching.
- Severe itching can lead to **excoriations**, which predispose the client to bacterial infections.

Management

- The condition is curable with a special shampoo.
- Counsel the client on the importance of compliance with treatment, follow-up visits, and partner management.

For more information about the management, treatment, and prevention of pubic lice, see Appendix B on page B.7.

§ *Signs and Symptoms*

- Lesions in the genital area
- Penile discharge
- Severe itching in the genital area
- Areas of excoriation on the penis, scrotum, **axilla**, buttocks, elbows, and **interdigital web spaces**

Physical Examination Findings

Vesicular, pustular, or papular skin lesions

Differential Diagnosis

Scabies

Comments

- This condition is difficult to differentiate from pubic lice.
- It is associated with overcrowding.
- The client may indicate that family members also have severe itching.

Management

- The condition is curable.
- Prescribe a topical cream.
- Advise the client to practice good hygiene.
- Treat all family members.

For more information about the management, treatment, and prevention of scabies, see Appendix B on page B.7.

Disorders of the Skin of the Genitals (*continued*)

§ *Signs and Symptoms*

- Burning in the genital area
- Itching and red rash in the genital area
- Swelling in the genital area

Physical Examination Findings

- Lesions, which are usually bilateral, in the **crural fold**
- Half-moon-shaped plaques, scaling, and sometimes a **vesicular border** that advances out of the crural fold onto the thigh

Differential Diagnosis

Tinea of the groin (jock itch)

Comments

- This condition is a form of ringworm, which is a type of fungal infection of the outer layers of the skin, hair, and nails.
- It usually occurs in the summer months, after the client has been sweating or wearing wet clothing for long periods of time.
- A warm, moist environment predisposes clients to this condition.

Management

Apply an antifungal cream or a combination antifungal/steroid cream for several days.

Disorders of the Testes

§ *Signs and Symptoms*

- **Undescended testes**
- Infertility

Physical Examination Findings

- Testes that are not palpable in the scrotum
- Undescended testes that may be palpable as a mass in the **inguinal canal**
- Testes that may be **retractile**

Differential Diagnosis

Cryptorchidism (see Photograph 12 in Appendix H on page H.6)

Comments

- This condition is the incomplete or abnormal descent of one testicle or both testes into the scrotum.
- In an infant, a retractile or **hypermobile** testicle that pulls up into the inguinal canal can often be moved down into the scrotum with gentle pressure. But a true undescended testicle cannot be brought down in this way.
- An absent testicle is very rare.

Disorders of the Testes (*continued*)

- **Ectopic testicle** is associated with cryptorchidism. Once in a while, when the inner thigh is stroked longitudinally, a retractile testicle can be brought back up into the inguinal canal by a hyperactive cremaster reflex (see below).
- Cryptorchidism of both testes leads to infertility; undescended testes lose the ability to produce sperm if they are not brought back up into the scrotum (see page 1.54). Cryptorchidism also leads to a high risk of developing testicular cancer (see page 1.33) later in life.
- If only one testicle is undescended and diagnosed after puberty, surgery is usually performed.
- Retractable or hypermobile testes do not require treatment.

Note: The cremaster reflex is a superficial skin reflex that is elicited by stroking the skin of the inner aspect of the thigh in an upward motion. This action causes the cremaster muscle to contract and the testicle to elevate at least 0.5 cm. The cremaster reflex is best demonstrated when the client is supine or in a **lithotomy position**.

Management

- Refer the client to a urologist if surgery is necessary.
- Performing **orchidopexy**, preferably before age 2, may be considered. If surgery is delayed until after age 5, **impaired spermatogenesis** may result, especially if both testes are undescended.
- Even after treatment, the client may still be at higher risk for testicular cancer (see page 1.33). Advise the client (or his parents) of the signs and symptoms of testicular cancer and explain how to perform a genital self-examination.
- Explain to the client (or his parents) that he needs to have yearly follow-up examinations.

§ **Signs and Symptoms**

- Gradual onset of scrotal pain and swelling that peaks over a period of three to 24 hours
- Scrotal swelling that radiates to the abdomen or genital area
- Scrotal swelling that develops after heavy lifting or exercise
- Dysuria, frequent urination, and urgent urination
- Nausea and low-grade fever
- Increased incidence of epididymitis after vasectomy

Physical Examination Findings

- Localized, tender, swollen epididymis when the epididymis is palpated inferior and posterior and separately from a less painful testicle
- Testicular discomfort that can be relieved through scrotal elevation
- Scrotal skin that is reddened or, when an abscess is present, dry, flaky, and thin
- Urethral discharge
- Thickened spermatic cord

Differential Diagnosis

Epididymitis

Disorders of the Testes (*continued*)

Comments

- **THIS IS A MEDICAL EMERGENCY** in severe cases. This condition is an infection or inflammation of the epididymis. If the infection is left untreated, it can enter the bloodstream, which is life-threatening.
- It is usually caused by gonorrhea, chlamydia, or **gram-negative enteric bacteria**. Organisms generally reach the epididymis through the lumen of the vas deferens from a previous infection of the bladder or posterior urethra.
- The condition is most often associated with **sexual activity** and STIs. It is also caused by tuberculosis. In young clients, epididymitis is most commonly caused by STIs, so taking a thorough sexual history is important (see page 1.61).
- Commonly, epididymitis is caused by direct scrotal trauma. It may present as **chemical epididymitis** following heavy lifting or straining that causes urine to **reflux** from the bladder down the vas deferens. As the condition progresses, swelling of the scrotum (epididymis and testicle) becomes apparent. The accompanying pain is difficult to distinguish from the pain associated with orchitis (see page 1.32).
- Recurrent attacks can lead to **chronic epididymitis** with fibrosis and scarring. In chronic epididymitis, the epididymis is thickened and enlarged; it may or may not be tender. Chronic prostatitis (see page 1.20) may also be present.
- Tuberculous epididymitis findings are similar to those of chronic epididymitis. The client may have bead-like thickenings of the vas deferens, a thickening of the seminal vesicle on the same side, a **nodular** prostate, and other evidence of urinary tract tuberculosis.
- If the condition is bilateral, sterility may result. Because sperm production and transport are disrupted, the client may not be able to fertilize the eggs of his female partner.
- There is an increased incidence of epididymitis after vasectomy. There are two possible reasons for this increase: An infection at the site of the surgery may ascend backward toward the epididymis, and the chronic or permanent obstruction in the vas deferens may play a role.
- Epididymitis is primarily a disorder that affects adults; the condition is rarely found in preadolescent boys.
- A history of urinary tract infection, painful voiding, urethral discharge, or catheterization suggests epididymitis. A history of lifting and straining or events that increase **intrapelvic** pressure also suggests this diagnosis.
- The condition may be obscured by a hydrocele (see page 1.21).
- The client may also have prostatitis. If so, do **not** massage the prostate gland, because this may cause the epididymitis to worsen.

Management

- General measures are complete bed rest and scrotal elevation with ice applied for 10 minutes three times a day.
 - Prescribe an organism-specific antibiotic, analgesics, and stool softeners.
 - In severe cases, such as sepsis and testicular abscess, the client must be hospitalized and treated with antibiotics intravenously.
-

Disorders of the Testes (*continued*)

§ *Signs and Symptoms*

- Generalized scrotal swelling and pain
- Fever
- Urethral stricture
- Scrotal-skin **furuncle**

Physical Examination Findings

- Initial findings that are very subtle
- **Edematous**, red, tense, warm, **crepitant**, black, foul-smelling scrotum
- No localized area of infection

Differential Diagnosis

Fournier's gangrene

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated within 24 hours, it can lead to necrosis of the scrotal wall.
- The condition is a rapidly spreading skin infection that presents with scrotal swelling.
- The average client with Fournier's gangrene is age 55.
- The client may have a history of perirectal disease.
- Immunocompromised clients, such as those infected with HIV, have a higher risk for infection. Clients who have diabetes, use steroids, or abuse alcohol are also at higher risk for Fournier's gangrene.

Management

- Refer the client to a surgeon immediately; a delay in treatment can significantly increase mortality.
- Tell the client to drink plenty of fluids.
- Prescribe an organism-specific antibiotic.

§ *Signs and Symptoms*

- Scrotal pain
- **Peritoneal irritation**, including nausea and vomiting

Physical Examination Findings

Tender, firm mass that can be palpated in the **superior scrotal and inguinal region**

Differential Diagnosis

Incarcerated hernia

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to necrosis of the bowel.
- An incarcerated hernia may cause an intestinal obstruction.
- This condition is difficult to distinguish from a strangulated hernia.
- An incarcerated hernia of short duration can be carefully reduced by palpating and applying pressure to the swelling.

Disorders of the Testes (*continued*)

Management

Refer the client to a surgeon.

§ *Signs and Symptoms*

- Scrotal pain
- Gradual onset of testicular pain that radiates to the genital area
- Nausea, vomiting, and high fever

Physical Examination Findings

- Enlarged, tense, tender testicle
- Normal epididymis
- Recognizable scrotal abscesses, which are rare
- Acute hydrocele
- In **mumps parotitis**, salivary gland swelling and pain that develop three to four days before orchitis (the viruses attack both the parotid glands, causing swelling [mumps], and the testes)
- In **tuberculous orchitis**, a tuberculous infection of the lung or epididymis

Differential Diagnosis

Orchitis

Comments

- This condition is a rare infection or inflammation of the testicle.
- It is caused by the spread of infection from epididymitis (see page 1.29) or by hematogenous spread. It is also caused by the mumps virus in postadolescent males, by tuberculosis, and by syphilis (see page 1.66).
- **Granulomatous orchitis**, which is probably an autoimmune response to sperm, can occur in middle-aged and older men. This condition is hard to distinguish from testicular tumors, and it can be diagnosed only after orchiectomy.
- Testicle atrophy may occur after the acute phase of orchitis, with impaired sperm production but normal hormonal function. Spermatogenesis is irreversibly damaged in about 30% of testes after mumps orchitis. After **bilateral orchitis**, clients may become sterile.
- In early orchitis, it may be possible to distinguish between epididymitis and orchitis, but in later orchitis, inflammation and swelling affect both testes.
- Urinary symptoms are absent in orchitis unless epididymitis is also present.
- Orchitis can mask a testicular tumor.
- **Live, attenuated** mumps vaccine is highly effective in preventing mumps parotitis and orchitis.
- Orchitis is most often seen as a secondary infection during a systemic illness.

Management

- Tell the client to get plenty of rest.
- Elevate the scrotum.
- Prescribe analgesics.

Disorders of the Testes (*continued*)

- Perform a urinalysis to check for leukocytes in the urine and a **Gram stain** for **gram-negative bacteria**.
- Explain to the client that follow-up treatment is necessary until the testicle and epididymis can be easily examined and are determined to be normal. This may take as long as four weeks.
- **Testicular atrophy** with infertility later in life occurs in many cases, regardless of the treatment.

§ *Signs and Symptoms*

- Scrotal pain
- Swelling and discoloration of the scrotal skin

Physical Examination Findings

- Pain during palpation of the scrotum
- Visible laceration on the scrotum

Differential Diagnosis

Scrotal injury

Comments

- **THIS IS A MEDICAL EMERGENCY** if the testicle ruptures upon severe, blunt scrotal injury. If the condition is not treated promptly, it can lead to the permanent loss of reproductive function.
- Scrotal injury can be caused by various events, such as when scrotal skin gets caught in zippers or machinery. The testes may escape injury.
- Trauma to the scrotum sometimes involves profuse bleeding, which must be controlled.
- Scrotal injury can be blunt or penetrating. Blunt trauma can be accompanied by scrotal swelling, and severe blunt trauma can involve rupture of the testicle.
- The client may have a history of scrotal injury.

Management

Refer clients with suspected testicular trauma to a surgeon immediately.

§ *Signs and Symptoms*

Hard, irregular, and usually painless scrotal swelling

Physical Examination Findings

Testicle or testes that may be enlarged and feel firmer than normal

Differential Diagnosis

Testicular cancer (see Photograph 13 in Appendix H on page H.6)

Comments

- This condition is a malignant tumor of the testicle.
- At least 50% of testicular masses are malignancies; about 90% to 95% are **germ cell tumors**. Most scrotal masses are not testicular cancer. A painless mass in the testicle should be presumed to be cancer until proven otherwise.

Disorders of the Testes (*continued*)

- Testicular cancer is rare, but it is one of the most common cancers in men under age 30.
- The incidence of testicular cancer varies widely among countries and races.
- Men with a history of cryptorchidism (see page 1.28) are at much higher risk for testicular cancer.
- Signs of tumor spread—such as abdominal mass, edema, back pain, or weight loss—can also be present.
- About 1% to 2% of primary testicular cancers are bilateral.
- Testicular cancer is most commonly misdiagnosed as epididymitis.
- The condition may be accompanied by a hydrocele that conceals the underlying tumor.
- Pain is not generally a major complaint, but it can be a symptom if the tumor invades other structures, causing a hematocele (see page 1.21).

Management

Refer clients with suspected testicular cancer to a urologist immediately for surgery, radiotherapy, and/or chemotherapy, depending on the stage of the disease.

§ **Signs and Symptoms**

- Sudden onset of moderate to severe scrotal pain that radiates to the abdomen or genital area
- Onset of pain during sleep
- Abdominal pain only
- Intermittent episodes of severe pain
- Nausea, vomiting, and low-grade fever

Physical Examination Findings

- Tender testicle that is retracted upward and lies with its longest diameter parallel to the floor (instead of perpendicular to it) when the client stands
- Scrotal swelling
- Thickened spermatic cord
- Discomfort that is not relieved by elevating the testicle
- Swelling of the **hemiscrotum** that prevents palpation of the testicle
- Cremaster reflex often absent

Differential Diagnosis

Testicular torsion (see Photograph 14 in Appendix H on page H.7)

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to ischemia and necrosis of the testicle.
- This condition is the twisting of the testicle on the spermatic cord.
- Testicular torsion is caused by a congenital anomaly of the spermatic cord. The condition is also caused by cold weather, sexual arousal, and scrotal trauma.
- After the first six to 12 hours, the testicle may atrophy or develop into a scrotal abscess. Testicular torsion should be highly suspected and treated promptly because of the serious consequences.

Disorders of the Testes (*continued*)

- The client may not present in the typical manner. **Referred pain** to the abdomen, diagnosed as a stomach virus, is a common misdiagnosis.
- Testicular torsion can occur at any age, but it is most common in boys between ages 12 and 18.
- Previous episodes of testicular pain suggest testicular torsion.

Management

- Testicular torsion should be the primary consideration for any scrotal complaint in young boys and adolescent males.
 - Refer the client to a surgeon immediately.
 - The primary treatment for testicular torsion is surgical exploration. Generally, surgery within six to 12 hours of occurrence is necessary to prevent necrosis of the testicle and to salvage it.
 - **Manual detorsion** (reduction) can be attempted while definitive treatment is sought. To perform the maneuver, stand on the client's right side and help him assume a lithotomy position. Proceed with manual **detorsion** from medial to lateral—this action is similar to opening a book—because most testes twist in a lateral-to-medial position. The client's right testicle is detorsed in a counterclockwise direction.
-

Disorders of the Urethra

§ **Signs and Symptoms**

- Painful, curved erection that makes sexual intercourse difficult or impossible
- Deviation of the urinary stream
- Urethra that does not open at the glans of the penis

Physical Examination Findings

- Urethral opening on the dorsal surface of the penis, between the pubis and glans
- Groove that extends on the shaft of the penis from the actual urethral opening to the tip of the glans
- Hooded foreskin
- Dorsal scar tissue on the shaft of the penis that may be palpable
- In severe cases, a visible, malformed scrotum

Differential Diagnosis

Epispadias

Comments

- This condition is a congenital displacement of the location of the urethral opening on the dorsal surface of the penis.
- The condition is usually diagnosed at birth. If it is neglected, fully grown men may present with epispadias.
- Epispadias is much rarer than hypospadias (see page 1.36).

Management

- Explain to the parents or client that surgery corrects epispadias and that some follow-up is necessary to ensure the expected outcome of the surgery.

Disorders of the Urethra (*continued*)

- Inform the parents that they should **not** circumcise the baby because the foreskin tissue is needed for the corrective surgery.
 - If the baby or client has already been circumcised, explain that corrective surgery will be done but that it is less likely to correct epispadias.
 - Refer the parents or client to a urologist for surgery.
-

§ *Signs and Symptoms*

- Painful, curved erection that makes sexual intercourse difficult or impossible
- Deviation of the urinary stream
- Urethra that does not open at the glans of the penis

Physical Examination Findings

- Urethral opening on the **ventral** surface of the penis, between the scrotum and glans
- Groove that extends on the shaft of the penis from the actual urethral opening to the tip of the glans
- Hooded foreskin
- Ventral scar tissue on the shaft of the penis that may be palpable
- In severe cases, a visible, malformed scrotum

Differential Diagnosis

Hypospadias (see Photograph 15 in Appendix H on page H.7)

Comments

- This condition is a congenital displacement of the location of the urethral opening on the ventral surface of the penis.
- The condition is usually diagnosed at birth. If it is neglected, fully grown men may present with epispadias.
- Hypospadias is much more common than epispadias (see page 1.35).

Management

- Explain to the parents or client that surgery corrects hypospadias and that no follow-up is necessary.
 - Inform the parents that they should **not** circumcise the baby because the foreskin tissue is needed for the corrective surgery.
 - If the baby or client has already been circumcised, explain that corrective surgery will be done but that it is less likely to correct hypospadias.
 - Refer the parents or client to a urologist for surgery.
-

§ *Signs and Symptoms*

- Urinary retention or difficulty urinating
- Bloody, urethral discharge

Physical Examination Findings

Palpable urethral mass

Differential Diagnosis

Urethral carcinoma

Disorders of the Urethra (*continued*)

Comments

- This condition is a rare complication of chronic urethral stricture (see below).
- It usually occurs after a long period of **urethritis** (see page 1.38) and subsequent urethral stricture.
- Usually, this very serious lesion has spread outside the confines of the urethra to the rest of the shaft of the penis at the time of diagnosis. The cancer grows very quickly, and the client typically comes in after it has spread.
- The condition is generally rare in men over age 50.

Management

Refer the client to a urologist if necessary.

§ *Signs and Symptoms*

- Urinary retention or difficulty urinating
- Narrowed urethral opening

Physical Examination Findings

- Palpable **induration** in the area of the stricture
- Tender, enlarged masses along the urethra, suggesting **periurethral abscesses**
- Multiple streams of urine during urination

Differential Diagnosis

Urethral stricture

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to kidney failure and backflow of urine.
- This condition is a urethral narrowing.
- It is usually caused by trauma or by scarring or adhesions from an infection.
- Urethral stricture may be congenital when seen in children.
- **Urinary extravasation** into surrounding tissues may result from urethral strictures.
- The condition is usually painless unless the stricture causes urinary retention. Urethral stricture can be a result of gonococcal urethritis or its treatment (see page 1.40).
- If the client has prostatitis, he may present with mild dysuria, urinary frequency, or chronic urethral discharge.
- **Urethral polyps, congenital urethral valves, urethral genital warts, phimosis,** and a benign or malignant obstruction of the urethra should also be considered.

Management

- Explain to the client that he needs a simple **dilation** procedure, which is done by a urologist.
- Tell the client that he will feel pain during urination after the procedure.
- Explain to the client that he will require follow-up care for at least 12 months after the procedure because urethral stricture may reoccur.
- Refer the client to a urologist.

Disorders of the Urethra (*continued*)

§ *Signs and Symptoms*

- Blunt trauma of the bladder and urethra
- Blood at the urethral opening
- Lower abdominal pain
- Urinary retention
- Pelvic or perineal pain and **hematoma**
- Shock (fast, weak pulse; sweating; cold, clammy skin; low blood pressure; loss of consciousness)

Physical Examination Findings

Lacerations or contusions at the site of the trauma

Differential Diagnosis

Urethral trauma

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to urethral stricture, erectile dysfunction, and urinary incontinence.
- The condition is an intraurethral trauma from a foreign object, a crush injury, or a straddle injury.
- Blood at the urethral opening is the most important sign of urethral injury.
- **Anterior urethral injuries** (penile and **bulbous urethra** below the **urogenital diaphragm**) are associated with **self-instrumentation**, falls, and straddle injuries. **Posterior urethral injuries** (between the bladder and the prostate gland) are usually associated with pelvic fractures.

Management

- Treat the client for shock and hemorrhage, if present (see “Overview: Emergency Management of Shock” on page 1.39).
- Do not allow the client to urinate, and do not attempt to insert a urethral catheter until assessment of the urethra is complete to eliminate any risk for extravasation.
- Refer the client to a urologist immediately for assessment and management.
- Explain to the client that after initial treatment, he will require follow-up care because posttraumatic urethral stricture may develop.

§ *Signs and Symptoms*

Dysuria and frequent urination

Physical Examination Findings

Tender, inflamed urethra

Differential Diagnosis

Urethritis (bacterial)

Comments

This condition is usually caused by an **E. coli urinary tract infection**.

Management

Prescribe an organism-specific antibiotic.

Overview: Emergency Management of Shock

The primary purposes of the physical examination are to rapidly assess the client and diagnose life-threatening injuries.

Airway and Breathing

- Give the client oxygen.
- If the client cannot adequately oxygenate, give him **ventilatory support**.

Circulation

Control bleeding from a visible injury with direct pressure.

Disability

Perform a brief neurological examination to determine level of consciousness.

Exposure

- Perform a head-to-toe examination to determine the client's injuries.
- If the client presents with pelvic trauma, check for associated disabilities, such as rupture of the urethra or bladder, intestinal perforation, nerve damage, and large-blood-vessel damage.

Access

- Catheterize the client intravenously with two large-caliber catheters placed for fluid resuscitation.
- Stabilize the client, and arrange to transport him to a facility with the resources required for his treatment.

§ Signs and Symptoms

- Dysuria
- Insignificant discharge from the urethra

Physical Examination Findings

Minimal physical findings (insignificant discharge)

Differential Diagnosis

Urethritis (chlamydial)

Comments

- The client usually presents with less severe symptoms than a client with gonococcal urethritis (see page 1.40).
- The **incubation period** can be as long as 45 days.

Management

Prescribe an organism-specific antibiotic.

Disorders of the Urethra (*continued*)

§ *Signs and Symptoms*

- Dysuria
- **Purulent urethral discharge** (see Photograph 16 in Appendix H on page H.8) that develops a few days after a sexual encounter
- Itching

Physical Examination Findings

Urethral discharge

Differential Diagnosis

Urethritis (gonococcal)

Comments

- Although rare, the client can develop a hematogenous spread of the organism to the joints, heart, and skin.
- The condition is commonly associated with chlamydia.
- The condition can lead to urethral stricture.

Management

- A Gram stain of the discharge examined under a microscope helps to diagnose the condition.
- Prescribe an organism-specific antibiotic.
- Explain to the client that follow-up care is necessary to ensure adequate treatment.
- Refer the client to an STI clinic.

§ *Signs and Symptoms*

- Dysuria
- Discharge from the penis
- Itching of the penis

Physical Examination Findings

With a chronic infection of the periurethral glands, induration and tender micro-abscesses that may be palpable along the urethra

Differential Diagnosis

Urethritis (nonchlamydial or nongonococcal [nonspecific]) (NGU)

Comments

- This condition is an inflammation of the urethra, which may be classified as non-chlamydial or nongonococcal.
- Nonchlamydial urethritis is most often caused by chlamydia, and nongonococcal urethritis is most often caused by gonorrhea.
- The condition is less commonly caused by **candida, herpes simplex, trichomonas infection, or ureaplasma**.
- It is infrequently caused by meningitis, gram-negative rods, or *Haemophilus*.
- Recurrent urethritis can be caused by inadequate treatment of either gonorrhea or chlamydia, reinfection by the partner, or an organism like herpes.

Management

Prescribe an organism-specific antibiotic.

Disorders of the Urethra (*continued*)

§ *Signs and Symptoms*

- Blunt trauma of the bladder and urethra
- Local swelling that extends to the scrotum, along the shaft of the penis, and up to the abdominal wall
- Pain at the site of the trauma, fever, and shock

Physical Examination Findings

Swelling and discoloration of affected tissues of the scrotum, shaft of the penis, and abdominal wall

Differential Diagnosis

Urinary extravasation

Comments

- **THIS IS A MEDICAL EMERGENCY.** If the condition is not treated promptly, it can lead to infection, sepsis, **morbidity**, and death.
- This condition is the leakage of urine into the tissues of the perineum, scrotum, and penis.
- Urinary extravasation is caused acutely by trauma to the urethra and bladder, or results from a urethral stricture.

Management

- Treat the client for shock and hemorrhage, if present (see “Overview: Emergency Management of Shock” on page 1.39).
 - Do not allow the client to urinate, and do not attempt to insert a urethral catheter until assessment of the urethra is complete to eliminate any risk for extravasation.
 - Refer the client immediately to a urologist for assessment and management.
-

Male Sexual Dysfunction

Sexual dysfunction is the inability to react emotionally or physically to sexual stimulation in a way expected of the average healthy individual or according to one's own standards of acceptable sexual response.

Common Causes of Male Sexual Dysfunction

Any of the following factors can contribute to male sexual dysfunction:

- **Psychological/emotional factors**, including stress, negative body image, **performance anxiety**, expectation of failure, fear of making a partner pregnant, memory of negative sexual experiences, and fear of acquiring or transmitting an STI.
- **Biological/physiological factors**, including changes related to aging, certain medical conditions (arthritis, reproductive cancers, diabetes, cardiac disease, hypertension), physical injury (such as spinal cord injuries), and substance abuse. Alcohol and anxiolytics can be “disinhibiting,” removing usual psychological inhibitions against sexual

activity. Many men have occasional experiences of not being able to attain an erection when they are tired, are physically cold, or have ingested too much alcohol.

- **Medications**—including antihypertension medications (especially diuretics, sympatholytics, and beta blockers), central nervous system drugs, hormones, and chemotherapeutic drugs—are also likely to have adverse sexual effects. Antidepressants may decrease desire due to the action of the drug, or increase desire due to alleviation of the depression. (This increased desire could have an adverse sexual effect in a very few cases. It could get out of control and lead to distress or, at the extreme, to unsafe sexual behavior or even illegal sexual behavior such as rape.)

One of the first questions that should be asked of any man who complains of sexual dysfunction is whether he is taking any medications and, if so, whether his problem appeared or worsened when he started the medication. It is often possible to switch to another medication that will have similar therapeutic benefits, but less negative impact on sexual functioning.

- **Interpersonal/social factors**, including peer pressure, poor communication with his partner, sexual abuse, religion, attitudes toward his sexual orientation, uncertainty of how to behave, and conflicts with his partner.
- **Environmental factors**, including cultural influences, gender dynamics, the availability of partners (partner ratio), and physical setting (lack of privacy).

Common Male Sexual Dysfunctions

Male sexual dysfunction can manifest in a variety of ways. Therefore, taking a good history is critical to ensuring a proper diagnosis and subsequent treatment. The following discussion describes common male sexual dysfunctions and their corresponding causes, signs and symptoms, and management.

Erectile Dysfunction

Erectile dysfunction, or impotence, occurs when a man is unable to attain or maintain a hard, erect penis satisfactory for sexual intercourse. Men with erection problems often retain other sexual functions. They may, for example, still have sexual desire, as well as the ability to have orgasms and ejaculate semen.

Causes. Erectile dysfunction can occur for a variety of reasons and often may have more than one cause. It can occur for psychological or physical reasons or for a combination of both.

Psychological causes of erectile dysfunction include stress and anxiety due to marital, financial, or any other external problem. For example, a man who is having problems in his marriage may find himself unable to have an erection because of the stress and anxiety he is experiencing in his relationship. **Performance anxiety** is also a common cause of erectile dysfunction. Because of anxiety about his ability to “perform,” a man finds he cannot perform—which causes more anxiety, thus completing a vicious cycle. Psychiatric illnesses, such as depression, can also cause erectile dysfunction.

Although there are a variety of **physical causes** of erectile dysfunction, the most frequent ones are vascular diseases. Vascular diseases may cause problems involving blood flow into the penis to make it erect. They can also cause problems of holding the blood in the penis to maintain the erection. Thus, hardening of the arteries and other diseases that affect the vascular system are risk factors for erectile dysfunction.

Diseases that affect the nervous system, such as multiple sclerosis and alcoholism, can also cause erectile dysfunction. Some diseases associated with erectile dysfunction, such as diabetes, can affect both the vascular and the nervous systems.

Erectile dysfunction can also result from pelvic fractures or crush injuries experienced in an automobile, motorcycle, or other accident. The accident victim may be left with injured nerves and/or penile arteries that cannot supply enough extra blood to the penis for an erection. Spinal cord injuries that destroy nerve fibers are another cause of erectile dysfunction. Some types of surgery and radiation therapy, such as for treating prostate, bladder, or rectal cancer, carry a risk for erectile dysfunction. In addition, certain medications might contribute to erectile dysfunction (National Kidney and Urologic Diseases Information Clearinghouse Web Site).

If erectile dysfunction occurs only occasionally, the problem is probably due to psychological causes, such as stress and fatigue. If the problem is chronic, however, it is important for the client to see a urologist or a physician who can determine the causes through a complete physical examination and a medical history review.

The biological/physiological processes associated with the various causes of erectile dysfunction are presented below.

Cause: Diabetes

Comments

- About 60% of men with diabetes are impotent. They become impotent within six years of the onset of diabetes.
- The high levels of blood sugar associated with diabetes can damage blood vessels and nerves.

Management

- Diabetes is potentially treatable.
- Inject a variety of **vasoactive substances** into the corpora cavernosa to produce an erection.
- Treatment may require surgery to reestablish circulation.
- Fit the client with a penile prosthesis.
- Refer the client to a specialist as necessary.

Cause: Heavy smoking

Comments

- Smoking causes blood vessels throughout the body to **vasoconstrict**, which reduces the amount of blood that flows to the penis.

Biological/Physiological Processes Associated with Erectile Dysfunction (*continued*)

- Erectile dysfunction is more than twice as common among heavy smokers than non-smokers.

Management

Advise the client to stop smoking, and provide or refer for counseling and nicotine patches, as requested.

Cause: Hormonal abnormalities _____

Comments

- When erectile dysfunction results from decreased testosterone, it is usually accompanied by decreased libido or interest in sex.
- Other signs and symptoms of decreased testosterone are a loss of facial and body hair, a decrease in lean muscle mass, fatigue, and **lethargy**.
- In about 5% of men with erectile dysfunction, the condition is caused by abnormal levels of sex hormones, such as low levels of testosterone and high levels of prolactin and estrogen.
- Hypogonadism is a condition in which the testes do not produce enough testosterone (see "Male Infertility" on page 1.48).

Management

- Hormonal abnormalities are potentially treatable.
- Refer the client as necessary.

Cause: Medication side effects _____

Comments

- Medications and other drugs are involved in an estimated 25% of erectile dysfunction cases, especially in older men, who tend to take more medications than younger men.
- The drugs that most commonly cause erectile dysfunction include hypertension medication, antidepressants, sedatives, cimetidine, and lithium.
- Erectile dysfunction can be made more severe by medications that are used to treat many of the disorders that cause it, such as diabetes and hypertension.

Management

- Medication side effects are potentially treatable.
- Refer the client as necessary.
- Consult with the client's service provider about changing the timing or dosage of his medication.

Cause: Nerve damage _____

Comments

- Obtain a thorough history of medications and prior surgeries, such as hernia repair.

Biological/Physiological Processes Associated with Erectile Dysfunction (continued)

- Erectile dysfunction can be caused by penile nerve damage, which results from diabetes, direct injury to the penis, multiple sclerosis, spinal cord injury, or stroke.
- Surgery in the spinal, pelvic, or penile area can also cause nerve damage.

Management

- Nerve damage is difficult to treat.
- Refer the client as necessary.

Cause: Nutritional deficiencies

Comments

- Erectile dysfunction can be caused by nutritional deficiencies in a variety of ways, including neurologic dysfunction.
- Zinc deficiency has been identified as a cause of erectile dysfunction.

Management

- Nutritional deficiencies are potentially treatable.
- Refer the client as necessary.

Cause: Systemic disorders

Comments

- These systemic disorders include **alcoholism**, cancer, cirrhosis, **hemachromatosis**, **renal failure**, **scleroderma**, and **syphilis**.
- These disorders can impair circulation, nerve function, and/or hormonal function, which can prevent erections.

Management

- Systemic disorders are potentially treatable.
- Refer the client as necessary.

Cause: Trauma

Comments

- Erectile dysfunction can be caused by trauma to the pelvic blood vessels and nerves.
- The client will provide a history of trauma.
- Bicycle riding for long periods of time has been identified as a contributing etiologic factor. It causes vascular and nerve injury.

Management

- Trauma is potentially treatable.
- Refer the client as necessary.

Cause: Vascular disease

Comments

- Risk factors include diabetes, high cholesterol, and hypertension.

Biological/Physiological Processes Associated with Erectile Dysfunction (*continued*)

- The decrease of blood flow to the penis can affect the ability to achieve an erection.
- **Arteriosclerosis** is associated with age and accounts for 50% to 60% of impotence in men over age 60.
- Prior pelvic or penile surgery can decrease penile blood flow.

Management

- Vascular disease is potentially treatable.
- Refer the client as necessary.

Inhibited Sexual Desire

Sexual desire changes over the course of our lives, and occasional loss of desire is not uncommon. In **inhibited sexual desire (ISD)**, however, a persistent loss of desire disrupts an individual's sexual relationship(s). It is characterized by diminished sexual attraction, decreased sexual activity, few or no sexual dreams or fantasies, and diminished attention to erotic material.

Causes. Similar to erectile dysfunction, the causes of ISD in men can be psychological and/or physical. **Psychological causes** can include stress, relationship problems, sexual trauma, and major life changes.

Physical causes can include testosterone deficiency, whose signs and symptoms are a loss of facial and body hair; a decrease in lean muscle mass; fatigue; lethargy, or a loss of energy; erectile dysfunction; depression; alcoholism; liver or kidney disease; chronic illness; and the side effects of drugs, such as antidepressants, recreational drugs (such as alcohol, cocaine, and marijuana), and tobacco.

Comments. Although ISD is less commonly reported in men than in women, men can be affected by this sexual dysfunction.

Management. ISD can be difficult to treat. Replacement therapy is indicated if testosterone deficiency is the cause of ISD. Determine which factors (relationship, situational, or physical or psychological) may be contributing to the loss of desire, and treat or refer the client to a sex therapist, urologist, or other specialist if possible and as appropriate. (If the cause is psychological, most studies indicate that response to psychological interventions for ISD is very poor.)

Usually, decreased desire passes with time, especially if there is open communication between partners. Simple exercises in which partners touch each other without the goal of sex in mind may help to boost libido and reduce stress. If sexual desire does not improve within three months, it may be useful to visit a provider specializing in sex therapy.

Premature Ejaculation

Premature ejaculation is a condition in men characterized by persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it. It occurs when a man is unable to exert reasonable voluntary control

of his ejaculatory response and is unaware of erotic sensations leading to the **point of inevitability** and ejaculation. Premature ejaculation is most common among younger men and men with limited sexual experience. The condition is often associated with performance anxiety.

Causes. The causes of premature ejaculation are rarely physical. Some infections of the urethra and the prostate gland, untreated gonorrhea, and an overly tight foreskin have been considered as possible physical causes. More commonly, the affected man has not learned to recognize the sensory feedback that indicates ejaculation is imminent. This is common among men who have taught themselves to ignore this sensory feedback and “think of other things” as a means of avoiding ejaculation before they are satisfied or before their partner is satisfied.

Comments. Premature ejaculation is most common among younger men and men with limited sexual experience. The condition does not have an organic cause. It is often associated with performance anxiety, unreasonable expectations about performance, and emotional disorders.

Management. The following may help men who have concerns about premature ejaculation (Inlander & The People’s Medical Society, 1999):

- **Wear a condom.** This will reduce sensitivity and help to protect against unintended pregnancy and transmission of STIs.
- **Masturbate before sexual intercourse.** Masturbate to orgasm before engaging in sexual intercourse because a second erection lasts longer than a first.
- **Change positions.** Have your partner move to a position that you find less stimulating in order to delay ejaculation.
- **Talk to each other.** Sometimes you need to slow down or stop movement altogether to decrease stimulation. Your partner may not know this fact, so tell him or her.
- **Use the “stop/start” technique.** At the brink of orgasm, stop and relax until the ejaculatory feeling subsides. Repeat this exercise several times. This will help you recognize the sensation of ejaculation, thereby allowing more self-control.
- **Use the “squeeze” technique.** At the time of orgasm, gently squeeze (or ask your partner to squeeze) the tip of your penis (or the base of the penis) and hold for several seconds. Repeat the process several times.

Retarded Ejaculation

Retarded ejaculation is a condition in which the man has unusually delayed ejaculation. He may be able to ejaculate only with great effort and after a prolonged length of time despite sufficient arousal and stimulation.

Causes. This condition may have neurological, psychological, and medication-induced causes.

Comments. This condition may cause client anxiety, but it often does not have an organic cause.

Management. Treatment primarily consists of psychological exploration and counseling; refer the client to a specialist if he responds inadequately to reassurance and counseling.

Retrograde Ejaculation

Retrograde ejaculation is a condition in which the man ejaculates into his bladder instead of out the urethra.

Causes. Retrograde ejaculation usually results from dysfunction of the internal urethral sphincter or an open bladder neck during ejaculation. It is also caused by disorders such as multiple sclerosis; medications; bladder neck, colon, or rectal surgery; or spinal cord injury. The condition may occur after prostatectomy, in clients who are taking alpha-blocker medications, and in clients with diabetes, due to autonomic neuropathy.

Comments. Androgen deficiency may result in a lack of emission by decreasing the amount of prostatic and seminal vesicle secretions. A postmasturbation urine specimen will show many sperm.

Management. Clients who present with oligospermia and retrograde ejaculation may benefit from **alpha-adrenergic agonists**, such as pseudo-ephedrine, or imipramine. Medical failures may require the collection of postmasturbation urine for **intrauterine insemination** if a client complains of infertility or for **electro-ejaculation** if a client presents with absent emission.

Male Orgasmic Disorder

Male orgasmic disorder is persistent or recurrent involuntary delay in orgasm and ejaculation or the inability of the man to have an orgasm.

Causes. The cause is rarely physical and, rather, is associated with a traumatic sexual experience, strict religious upbringing, hostility, overcontrol, or lack of trust.

Comments. The condition is sometimes confused with retrograde ejaculation, which is common in homosexual men and may be related to fears of infection believed to be brought on by “safer sex” campaigns.

Management. Treatment includes psychological exploration and counseling.

Male Infertility

For men to be **fertile**, they must have the following:

- Normal spermatogenesis
- A functional epididymis for sperm maturation
- A patent ductal system to ensure that there are sperm in the ejaculate
- **Motility** of the sperm

- Normal biological structure and functioning of the sperm
- Ability to deposit the sperm in the woman's vagina (this requires an adequate sex drive and the ability to achieve and maintain an erection, have normal ejaculation, and place the ejaculate in the vaginal vault).

A couple or individual is considered **infertile** if the man and/or the woman have been unable to achieve a pregnancy after one year of unprotected intercourse. Scientific data indicate that in approximately 30% of cases, infertility is a result of a problem in the man's reproductive system, while in another 20% of cases, infertility can be due to the functioning of both the man's and the woman's reproductive system.

Infertility is often an anxiety-provoking situation; it can result in despair, shame, grief, depression, and even divorce. When service providers assess an infertile couple, it is best to obtain histories from each member of the couple separately and in *strict confidence*. Either client may have concealed information from the other that is relevant to assessing and dealing with their situation, such as a previous pregnancy, medical condition, or even previous sterilization. It is important to assess that *both* the male client and his partner want to have a(nother) child. Men and women can be coerced by their partners to have a(nother) child even if they are ambivalent about, or even opposed to, the idea of having a child. This should be assessed with each person *separately* and carefully. Providers should never take part in a coercive situation that forces either partner to try to conceive if the other partner seems reluctant.

Approach the male client with positive encouragement, and always avoid any language that suggests blame. Be aware of cultural issues related to infertility. In some cultures, marriages may be annulled if the couple is unable to conceive. They may consider childbearing as their primary role in their society, and the inability to conceive may be considered a significant failure. In addition, for men, the inability to have an offspring may have serious consequences related to loss of continuation of the family name, his concept of manhood, disposal of property, and social power.

Where infertility assessment is possible, it is a lengthy process and requires a team approach to treatments. Failure to treat the condition can result in frustration and grieving; support from a service provider is essential to help clients through this emotionally stressful process. Clients may need to have intercourse on a rigid schedule timed to the peak fertile days in the woman's menstrual cycle. Scheduling sex can decrease the spontaneity of lovemaking and increase the clients' anxiety. An infertility evaluation can require tests that male clients may find embarrassing. For example, semen analysis requires ejaculation by masturbation, and the postcoital test involves a prescribed time for intercourse followed by a scheduled visit within a few hours to the health care facility for semen analysis (see "Overview: Laboratory and Specialized Tests for Male Infertility" on page 1.50).

Overview: Laboratory and Specialized Tests for Male Infertility

The primary test for male infertility is semen analysis. Postcoital testing of the female partner assesses both **male** and **female factors** that may contribute to a couple's infertility. Routine hormonal testing (testosterone, LH, FSH, prolactin, estradiol) is indicated only if a man has very low sperm density or if endocrinopathy is suspected. Other studies, such as chromosomal analysis, immunologic studies to identify anti-sperm antibodies, testicular biopsy, sperm function tests, and testing for syphilis and other STIs may be performed selectively by infertility experts.

Causes of Male Infertility

Most male infertility is caused by a low sperm count or motility of the sperm, which is the sperm's ability to swim into a woman's fallopian tube and fertilize an egg. The following factors can affect sperm count and motility:

- Illnesses, such as the flu or mumps, can decrease the production of sperm
- STIs, which can affect the testes or the spermatic ducts
- Environmental toxins
- Smoking and alcohol and drug use can decrease sperm production
- Varicoceles, which are damaged or enlarged veins near the spermatic cord that can decrease sperm counts by increasing heat in the testes
- Congenital problems
- Chromosomal defects
- Hormonal insufficiency

Diagnosing Male Infertility

A service provider may refer a man to a urologist to determine the possible causes of infertility. The urologist may perform several tests, including:

- **Semen analysis** to test the semen volume, consistency, number of sperm, motility, and sperm shape
- **Postcoital test** to check the compatibility of the man's sperm with a woman's cervical mucus
- **Blood tests** to check for hormone imbalances
- **X-rays** to look for damage and blockage of the vasa deferentia

Preventing Male Infertility

There are some things a man can do to improve his fertility, including the following (Inlander & The People's Medical Society, 1999):

- Avoiding stress
- Not using alcohol or drugs

- Not smoking
- Checking medications that may affect fertility
- Taking antioxidants
- Getting enough zinc
- Eating plenty of fruits, vegetables, and whole grains
- Avoiding environmental toxins
- Wearing loose-fitting undergarments

Pretesticular Causes of Infertility

Pretesticular causes of infertility include congenital or acquired diseases of the hypothalamus, pituitary gland, or peripheral organs that result in an alteration of the **hypothalamic-pituitary axis**. These causes account for 1% to 2% of infertility cases, and are described below.

Cause: Congenital hypogonadotropic hypogonadism (Kallman's syndrome) _____

History/Physical Examination Findings

- Midline facial defects
- Color blindness
- Hearing difficulties
- Cryptorchidism (see page 1.28)

Comments

- This condition is caused by a defect in gonadotropin-releasing hormone (GnRH) secretion.
- **Azoospermia**, when no sperm are found in the ejaculate, or severe **oligospermia**, when a small number of sperm are found in the ejaculate, is present.
- The absence of low levels of testosterone and of gonadal stimulating pituitary hormones (**follicle-stimulating hormone [FSH]** and **luteinizing hormone [LH]**) results in absent or decreased gonadal function.
- The client may have other endocrine (thyroid, adrenal) abnormalities.

Management

The condition is potentially treatable.

Cause: Estrogen excess _____

History/Physical Examination Findings

Gynecomastia

Comments

High estrogen levels may result from testicular tumors, liver failure, or massive obesity.

Management

The condition is potentially treatable.

Pretesticular Causes of Infertility (*continued*)

Cause: Hemochromatosis _____

History/Physical Examination Findings

- Enlarged liver
- Eye-color changes

Comments

This condition is a genetic disorder that affects the body's ability to metabolize iron. The client has an overload of iron deposits in the liver, pituitary gland, or, less commonly, testes.

Management

The condition is potentially treatable.

Cause: Hyperprolactinemia _____

History/Physical Examination Findings

- Infertility
- Gynecomastia
- **Galactorrhea**
- Headaches
- Changes in vision

Comments

- This condition is a disorder that affects the level of prolactin in the blood.
- Elevated prolactin levels disrupt erectile function and adversely affect **semen parameters**.

Management

The condition is potentially treatable.

Cause: Steroid excess _____

History/Physical Examination Findings

- **"Cushing's syndrome" body habitus** with **moon face (facial adiposity)**, increased **adipose tissue** in the neck and trunk
- Central weight gain, muscle wasting, thin skin, easy bruising, poor wound healing, susceptibility to infection, **hirsutism**, purple striae, thin extremities, osteoporosis, **"buffalo hump,"** bone necrosis, hypertension, headache, backache, general weakness, acne, **hyperglycemia**, and **glycosuria** (all signs of excess steroids)

Comments

High cortisol levels caused by steroid therapy for ulcerative colitis, asthma, arthritis, or organ transplant can lead to inhibition of **GnRH release**.

Management

The condition is potentially treatable.

Primary Testicular Causes of Infertility

Primary infertility affects 15% to 30% of married couples; the percentage varies widely with geographic location. About 33% of primary infertility cases are due to male factors, 33% are due to female factors, and 33% are due to combined factors. Endocrinologic profiles and detailed semen analysis are the cornerstones of laboratory investigations performed after history taking and physical examination findings. Because spermatogenesis takes approximately 74 days, it is important to review events from the past three months.

Primary Gonadal Deficiency. Primary gonadal deficiency is an important cause of infertility, involving 30% to 40% of cases of male infertility. When taking the client's history, ask about previous testicular disorders (torsion, cryptorchidism, trauma), infections (mumps orchitis, urethritis, epididymitis), heat-related issues (e.g., testicular proximity to a hot engine [which truck drivers present with], routinely taking hot baths, wearing tight underwear, riding a bicycle), medications that may affect spermatogenesis (spironolactone, nitrofurantoin, cimetidine), radical pelvic surgery, or hernia repair that may damage testicular blood supply.

When performing the physical examination, pay particular attention to features of **hypogonadism**. Male hypogonadism is caused by deficient testosterone secretion by the testes. It may be classified according to whether it is due to insufficient gonadotropin secretion by the pituitary (**hypogonadotropic hypogonadism**) or to pathology in the testes themselves (**hypergonadotropic hypogonadism**). Signs and symptoms may include diminished libido and erections, as well as decreased body hair growth. In addition, the testes may be small and/or fibrotic, or they may be normal. **Serum gonadotropins** (luteinizing hormone [LH] and follicle-stimulating hormone [FSH]) are decreased in hypogonadotropic hypogonadism, but increased in testicular failure (from mumps, irradiation, cancer therapy, autoimmune disease, **uremia**, **gonadal dysgenesis**, or **Klinefelter's syndrome**).

Conditions causing infertility due to primary testicular causes are presented below.

Cause: Age _____

History/Physical Examination Findings

Usually no physical findings

Comments

A client who is age 64 or older can experience a decline in semen quality. The number of sperm decrease, and the mobility of the sperm slows.

Management

The condition is potentially treatable with hormones.

Cause: Bilateral anorchia _____

History/Physical Examination Findings

Absent testes (a congenital disorder)

Primary Testicular Causes of Infertility (*continued*)

Comments

This condition is rare.

Management

The condition is untreatable.

Cause: Chemotherapy _____

History/Physical Examination Findings

History of treatment for testicular cancer or other cancers

Comments

- Chemotherapy drugs are often most toxic to **actively dividing cells, spermatogonia, and spermatocytes.**
- The most toxic chemotherapy drugs are alkylating agents, such as cyclophosphamide.

Management

The client may become more fertile one year after treatment ends.

Cause: Chromosomal abnormalities (Klinefelter's syndrome) _____

History/Physical Examination Findings

- Gynecomastia
- Small testes
- **Eunuch-like** body proportions caused by **delayed puberty**

Comments

- This condition is associated with an extra X chromosome.
- Klinefelter's syndrome occurs in one out of 500 to 1,000 male births.
- The client is infertile because of **primary testicular failure.**
- The client is usually azoospermic.

Management

The condition is untreatable.

Cause: Cryptorchidism _____

History/Physical Examination Findings

- Possible history of surgery during childhood to correct cryptorchidism
- Testes that are not palpable in the scrotum
- Undescended testes that may be palpable as a mass in the inguinal canal
- Testes that may be retractile

Primary Testicular Causes of Infertility (*continued*)

Comments

- This condition is the incomplete or abnormal descent of one testicle or both testes into the scrotum.
- In an infant, a retractile or hypermobile testicle that pulls up into the inguinal canal can often be moved down into the scrotum with gentle pressure. But a true undescended testicle cannot be brought down in this way.
- An absent testicle is very rare.
- Ectopic testicle is associated with cryptorchidism. Once in a while, when the inner thigh is stroked longitudinally, a retractile testicle can be brought back up into the inguinal canal by a hyperactive cremaster reflex (see page 1.29).
- Cryptorchidism leads to infertility; undescended testes lose the ability to produce sperm if they are not brought back up into the scrotum. Cryptorchidism also leads to a high risk of developing testicular cancer later in life.
- If only one testicle is undescended and diagnosed after puberty, surgery is usually performed.
- Retractable or hypermobile testes do not require treatment.

Management

The condition is treatable if diagnosed early.

Cause: Environmental toxins _____

History/Physical Examination Findings

The client may provide helpful information during the history taking.

Comments

- Cigarettes and marijuana lead to a decrease in **sperm density**, motility, and **morphology**.
- Alcohol produces both an acute and a chronic decrease in testosterone secretion.

Management

The condition is potentially treatable.

Cause: Granulomatous disease _____

History/Physical Examination Findings

The client has manifestations of the disease, including skin changes and lung problems.

Comments

Leprosy and sarcoidosis may **infiltrate** the testicle and lead to **testicular failure**.

Management

The condition is potentially treatable.

Primary Testicular Causes of Infertility (*continued*)

Cause: Medications _____

History/Physical Examination Findings

History of medication use

Comments

Many drugs can cause a decrease in sperm production, including ketoconazole, cimetidine, spironolactone, tetracycline, colchicine, methadone, methotrexate, phenytoin, thioridazine, and calcium channel blockers.

Management

The condition is potentially treatable with cessation of use of medication.

Cause: Myotonic dystrophy _____

History/Physical Examination Findings

- Weakness
- Cardiac abnormalities
- Cataracts

Comments

This condition is an inherited disorder characterized by delayed onset of impaired motor function, cataracts, premature balding, mild mental retardation, and infertility.

Management

The condition is untreatable.

Cause: Occupational exposure _____

History/Physical Examination Findings

History of occupational exposures to toxins

Comments

- The client may have worked in a factory, on a farm, in a mine, or in industry.
- Sperm production is impaired because of **direct inhibition of testosterone synthesis and pituitary gonadotropin secretion**, or because of blocking of **peripheral androgen action**.
- Many pesticides have estrogen-like effects.

Management

The condition is potentially treatable.

Primary Testicular Causes of Infertility (*continued*)

Cause: Orchitis

History/Physical Examination Findings

- Scrotal pain
- Gradual onset of testicular pain that radiates to the genital area
- Nausea, vomiting, and high fever
- Enlarged, tense, tender testicle
- Normal epididymis
- Recognizable scrotal abscesses, which are rare
- Acute hydrocele
- In mumps parotitis, salivary gland swelling and pain that develop three to four days before orchitis (the viruses attack both the parotid glands, causing swelling [mumps], and the testes)
- In tuberculous orchitis, a tuberculous infection of the lung or epididymis

Comments

- This condition is a rare infection or inflammation of the testicle.
- It is caused by the spread of infection from epididymitis (see page 1.29) or by hematogenous spread. It is also caused by the mumps virus in postadolescent males, by tuberculosis, and by syphilis (see page 1.66).
- Granulomatous orchitis, which is probably an autoimmune response to sperm, can occur in middle-aged and older men. This condition is hard to distinguish from testicular tumors, and it can be diagnosed only after orchiectomy.
- Testicle atrophy may occur after the acute phase of orchitis, with impaired sperm production but normal hormonal function. Spermatogenesis is irreversibly damaged in about 30% of testes after mumps orchitis. After bilateral orchitis, clients may become sterile.
- In early orchitis, it may be possible to distinguish between epididymitis and orchitis, but in later orchitis, inflammation and swelling affect both testes and epididymides.
- Urinary symptoms are absent in orchitis unless epididymitis is also present.
- Orchitis can mask a testicular tumor.
- Live, attenuated mumps vaccine is highly effective in preventing mumps parotitis and orchitis.
- Orchitis is most often seen as a secondary infection during a systemic illness.

Management

The condition is potentially treatable (see page 1.32).

Cause: Radiation

History/Physical Examination Findings

History of treatment for cancer or occupational exposure to radiation

Comments

Radiation can impair sperm production.

Primary Testicular Causes of Infertility (*continued*)

Management

The condition is potentially treatable.

Cause: Sertoli-cell-only syndrome (germinal cell aplasia) _____

History/Physical Examination Findings

- Small or normal-sized testes
- Azoospermia (see page 1.51)

Comments

The client has a congenital defect of the testes.

Management

The condition is untreatable.

Cause: Systemic illness _____

History/Physical Examination Findings

The client has a history of chronic renal disease, cirrhosis, sickle-cell anemia, **protein-calorie malnutrition**, advanced Hodgkin's disease, cancer (prior to chemotherapy), **amyloidosis**, **myocardial infarction**, severe burns, **celiac disease**, or HIV infection.

Comments

The client has an acquired defect of varying severity.

Management

The condition is potentially treatable.

Cause: Testicular trauma _____

History/Physical Examination Findings

History of testicular trauma, including testicular torsion

Comments

- Testicular trauma is the second most common acquired cause of infertility.
- The testes are at risk for both **thermal trauma** and physical trauma because of their exposed position.

Management

The condition is potentially treatable (see page 1.33).

Cause: Varicocele _____

History/Physical Examination Findings

- Scrotal swelling, usually chronic and on the left side
- Scrotum that feels like a "bag of worms" because of its prominent, slippery vessels
- Small "bag of worms" felt just above the testicle, along the spermatic cord

Primary Testicular Causes of Infertility (*continued*)

Comments

- This condition is a collection of varicose veins in the scrotal sac.
- A varicocele more commonly occurs on the left side because the left testicular vein drains into the left renal vein, whereas the right testicular vein drains into the inferior vena cava.
- Nearly 20% of men have a left varicocele of some degree. An acute appearance of a varicocele, especially on the right side, should prompt further evaluation for the presence of renal cancer, renal vein thrombosis, or vena cava obstruction.
- The condition is associated with infertility.
- A client who presents with a varicocele of recent or rapid onset, especially on the right side, should be evaluated for kidney cancer, which might be occluding the renal vein.
- A varicocele is usually visible when the client is in an upright position.

Management

The condition is potentially treatable (see page 1.24).

Disorders of the Sperm Transport System. The epididymis is an important site for sperm maturation and an essential part of the sperm transport system. The vasa deferentia transport sperm from the epididymides to the urethra (see page A.5). Abnormalities at any of these sites can cause infertility. Disorders of the sperm transport system account for 10% to 20% of male infertility, and are described below.

Cause: Absence of the vasa deferentia _____

History/Physical Examination Findings

- Absent vasa deferentia during palpation
- History of **cystic fibrosis** associated with **respiratory** and **gastrointestinal problems** (which cause poor sperm motility)

Comments

- The client may have a congenital absence of a vas deferens.
- The client may have cystic fibrosis.

Management

The condition is untreatable.

Cause: Blockage of a vas deferens _____

History/Physical Examination Findings

- Thickened, nodular vas deferens observed in tuberculosis from infection and granuloma formation
- STIs
- Vasectomy

Disorders of the Sperm Transport System (*continued*)

Comments

- **Genital ducts** may become obstructed resulting from such infections as **chlamydia**, **gonorrhea**, **tuberculosis**, and **smallpox**.
- Trauma or previous inguinal surgery can also cause blockage.
- Some men have sperm granulomas (an immune response) that form after a vasectomy.
- If the client has had a vasectomy, check for the presence of a **nodular sperm granuloma** at the **proximal vasal end**.

Management

The condition is potentially treatable.

Cause: Immotile cilia syndrome _____

History/Physical Examination Findings

- Respiratory tract trouble
- Frequent infections

Comments

This condition is caused by a defect in the functioning of cilia.

Management

The condition is potentially treatable.

Cause: Retrograde ejaculation _____

History/Physical Examination Findings

- Surgeries
- Medications

Comments

- This condition is caused by dysfunction of the internal urethral sphincter or an open bladder neck during ejaculation.
- It is also caused by such disorders as multiple sclerosis; medications; bladder neck, colon, prostate, or rectal surgery; or spinal cord injury.
- The condition may occur after prostatectomy, in clients who are taking alpha-blocker medications, and in clients with diabetes, due to autonomic neuropathy.

Management

The condition is potentially treatable (see page 1.48).

Other Causes of Infertility

Other causes of infertility include:

- **Psychological/emotional factors.** These include depression, marital disharmony or emotional conflict about intimacy, and sexual relations or parental roles, which can directly affect endocrine (hormonal/glandular) function and such physiological processes as normal libido, erection, and ejaculation (and, in women, ovulation). There is no evi-

dence, however, for any simple causal relationship between stress and infertility. Furthermore, fertility is affected by psychic factors such as frequency, duration, and timing of sexual intercourse, phobic avoidance of intercourse, and painful intercourse. The conditions are treatable.

- **Idiopathic infertility.** This term describes cases of infertility whose causes are unknown. The condition is untreatable.

Sexually Transmitted Infections (STIs)

Sexually transmitted infections (STIs) are infections that can be passed from one person to another person by sexual contact, although in some cases some STIs can be transmitted by other means as well. STIs can be transmitted between any two people—regardless of their sex or age—by penile-vaginal, anal, and oral sex and by skin-to-skin contact during sex. In many places in the world, STIs are referred to as **sexually transmitted diseases (STDs)**.

STIs are part of a broader group of infections known as **reproductive tract infections (RTIs)**. In addition to STIs, RTIs include other infections of the reproductive system that are not caused by sexual contact. Some of these infections result from an imbalance of the microorganisms normally found in the reproductive tract; still other RTIs are incurred during medical procedures.

The symptoms associated with STIs and other RTIs vary from none to severe. You cannot always tell if a person has an STI, and people without symptoms often transmit the infection to others unknowingly.

Common STIs

STIs can be divided into two broad categories:

- **Curable STIs:** These can be treated and cured with antimicrobial drugs. However, if they are not diagnosed and treated in time, some of these diseases can cause irreversible damage, such as infertility, inflammation of the testes, pneumonia and other infections in infants, and, in extreme cases, death.
- **Incurable STIs:** These are caused by viruses. Although these infections cannot be cured, in some settings they can be managed by relieving or reducing their symptoms.

Symptoms of STIs and RTIs in Men

The most common symptoms of STIs in men are:

- Anal or oral lesions
- Arthralgia
- Blisters or ulcers (sores) on the mouth, lips, genitals, anus, or surrounding areas
- Burning or pain during urination
- Diarrhea and straining
- Itching or tingling in the genital area

- **Jaundice** and/or fever, headache, muscle ache, abdominal pain, dark urine (*Note: All of these are symptoms of hepatitis B and hepatitis C, which are STIs.*)
- Penile discharge, with or without pain
- Skin lesions
- Swollen and/or painful testes
- Swollen lymph nodes in the groin
- Urethral discharge
- Urethral itching

Less common symptoms of STIs and RTIs include:

- Flu-like syndromes (fever, fatigue, headaches, muscle aches)
- Joint pain
- Mild liver inflammation
- Red nodules or bumps under the skin on the mouth, genitals, or anus that ulcerate, become tender, and often bleed easily
- Small, dimpled bumps or lesions on the skin that usually do not hurt or itch and are flesh colored, but can vary from white to yellow to pink
- Small, red bumps or ulcers in the genital or anal area; lymph node swelling in the genital area; chronic ulcers on the genitals or anus

Common STIs in Men

This section provides information on the signs and symptoms, physical examination findings, differential diagnosis, and management of common STIs in men. General comments are also provided. (For more information about the management, treatment, and prevention of STIs, see Appendix B.)

§ *Signs and Symptoms*

Blisters or ulcers (sores) on the mouth, lips, genitals, anus, or surrounding areas

Physical Examination Findings

- Anal, oral, and skin lesions with irregular, nonindurated borders
- Fluctuant lymph nodes with red, overlying skin

Differential Diagnosis

Chancroid

Comments

This condition is:

- Caused by the bacteria *Haemophilus ducreyi*
- Difficult to distinguish from herpes, lymphogranuloma venereum (LGV) (see page 1.65), or syphilis

Common STIs in Men (continued)

Management

- The condition is curable with organism-specific antibiotics.
- Use **syndromic** or **etiologic management** to determine the diagnosis and appropriate treatment.
- Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.

Note: Partner management involves treating the partners of STI clients in order to prevent reinfection of the clients and to prevent further spread of the infection to others. If possible, all partners of an infected client should be notified about their exposure to the infection and should be encouraged to seek treatment. Notification of partners can be done by the client, staff, or public health authorities.

§ **Signs and Symptoms**

- Urethral discharge
- Swollen and/or painful testes
- Burning or pain during urination

Physical Examination Findings

Minimal physical findings

Differential Diagnosis

Chlamydia

Comments

This condition is caused by *Chlamydia trachomatis* and is often asymptomatic in men.

Management

- The condition is curable with organism-specific antibiotics.
- Use syndromic or etiologic management to determine the diagnosis and appropriate treatment.
- Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.

§ **Signs and Symptoms**

- Blisters or ulcers (sores) on the mouth, lips, genitals, anus, or surrounding areas
- Burning or pain during urination
- Itching or tingling in the genital area

Physical Examination Findings

- Initial lesions with surrounding erythema that can cause shallow ulcers
- Inguinal lymphadenopathy that may present two to three weeks after the onset of symptoms

Differential Diagnosis

Genital herpes

Comments

- Complications of this condition include aseptic meningitis and encephalitis.

Common STIs in Men (*continued*)

- Initial lesions are painful vesicles with surrounding erythema that can cause shallow ulcers.
- There is a recurrence in 90% of clients during the first year of infection.
- Even though clients can be asymptomatic, they can still infect others, even when they “shed the virus” (some viruses can fall off or leave the body).

Management

- This condition is incurable, but the lesions can be suppressed with antiviral medications.
 - Instruct the client to follow general supportive measures:
 - Sitting in a bathtub or basin filled with warm water and some baking soda two times a day.
 - Keeping the sores and the areas around them clean and dry.
 - Using pain relievers, such as acetaminophen or aspirin.
 - Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.
-

§ ***Signs and Symptoms***

Warts or bumps on the genitals, anus, or surrounding areas

Physical Examination Findings

Raised or flat wart-like **papules**

Differential Diagnosis

Genital warts

Comments

This condition is:

- Caused by HPV
- Often asymptomatic
- Linked to the development of penile and **anal cancer**
- Frequently seen with other STIs

Management

- The condition is incurable, but the warts can be removed by **cryotherapy** or surgical excision.
 - Apply podophyllin topically to external skin lesions.
-

§ ***Signs and Symptoms***

- Urethral discharge
- Swollen and/or painful testes
- Burning or pain during urination

Physical Examination Findings

Tender testes

Differential Diagnosis

Gonorrhea

Common STIs in Men (continued)

Comments

This condition is commonly seen with chlamydia.

Management

- The condition is curable with organism-specific antibiotics.
- Use syndromic or etiologic management to determine the diagnosis and appropriate treatment.
- Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.

§ *Signs and Symptoms*

Inflammation of the lymph nodes in the genital area

Physical Examination Findings

- Tender inguinal lymphadenopathy without an ulcer
- **Draining sinus tract in the inguinal area**

Differential Diagnosis

Lymphogranuloma venereum (LGV) (see Photograph 17 in Appendix H on page H.8)

Comments

This condition is:

- Marked by the prevention of drainage of the lymph nodes in the genital area
- Caused by chlamydia invading the lymph channels and lymph nodes of the genital area

Management

- The condition is curable with organism-specific antibiotics.
- Use syndromic or etiologic management to determine the diagnosis and appropriate treatment.
- Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.

§ *Signs and Symptoms*

- Lesions in the genital area
- Penile discharge
- Severe itching in the genital area

Physical Examination Findings

Erythematous papules that may be hemorrhagic

Differential Diagnosis

Pubic lice

Comments

- This condition is caused by a parasite that may migrate to other hairy areas of the body, such as the eyebrows and eyelashes.
- The client may indicate that family members also have severe itching.
- Severe itching can lead to excoriations, which predispose the client to bacterial infections.

Common STIs in Men (*continued*)

Management

- The condition is curable with use of a special shampoo.
 - Counsel the client on the importance of compliance with treatment, follow-up visits, and partner management.
-

§ *Signs and Symptoms*

- Lesions in the genital area
- Penile discharge
- Severe itching in the genital area
- Areas of excoriation on the penis, scrotum, axilla, buttocks, elbows, and interdigital web spaces

Physical Examination Findings

Vesicular, pustular, or papular skin lesions

Differential Diagnosis

Scabies

Comments

- This condition is difficult to differentiate from pubic lice.
- It is associated with overcrowding.
- The client may indicate that family members also have severe itching.

Management

- The condition is curable.
 - Apply a topical cream.
 - Practice good hygiene.
 - Treat all family members.
-

§ *Signs and Symptoms*

Blisters or ulcers (sores) on the mouth, lips, genitals, anus, or surrounding areas

Physical Examination Findings

- Painless ulcers indurated with a smooth base and raised, firm borders
- *Primary syphilis*: Initially causes sores that will heal on their own, but the infection will still be present and can progress to secondary or tertiary syphilis.
- *Secondary syphilis*: Rash, sore throat, muscle aches, tiredness, and swollen lymph nodes
- *Tertiary syphilis*: No symptoms for many years; eventually can affect every part of the body; at this stage, can damage the heart and nervous system and can cause death

Differential Diagnosis

Syphilis

Comments

- Approximately 90% of relapses from latent syphilis occur in the first year after infection.
- Many clients have more than one late manifestation.

Common STIs in Men (continued)

- Cardiovascular syphilis is seen only in those who develop syphilis after age 15.
- Asymptomatic neurosyphilis has been reported in 8% to 40% of clients.

Management

- The condition is curable with organism-specific antibiotics.
 - Use syndromic or etiologic management to determine the diagnosis and appropriate treatment.
 - Counsel the client on the importance of compliance with treatment, follow-up visits, partner management, and the use of condoms.
-

Hepatitis and HIV/AIDS

Hepatitis and HIV/AIDS deserve special mention because of their variable presentations. Service providers should suspect these conditions when treating clients, especially those who engage in high-risk behavior.

Hepatitis (Hepatitis A, B, or C)

§ Signs and Symptoms

Some of the symptoms that men with viral hepatitis may have include:

- Fatigue, malaise
- Loss of appetite
- Upper abdominal pain
- Jaundice
- Dark urine

Physical Examination Findings

Tenderness in the upper abdomen

Comments

The client may present with such systemic signs as fever and general weakness.

Management

The condition is incurable.

HIV/AIDS

It can take 10 or more years between the time an individual becomes infected with HIV and the development of AIDS.

Many men who are infected with HIV have no symptoms. The signs and symptoms of HIV/AIDS are often nonspecific and common to other illnesses; only a laboratory test can confirm the presence of HIV infection.

§ Signs and Symptoms

Some of the symptoms of HIV-related illnesses and AIDS in men include:

- Unexplained weight loss lasting at least one month
- Diarrhea lasting for several weeks

- A white coating on the tongue (thrush/oral candidiasis)
- Enlarged or sore lymph nodes (glands) in the neck, armpits, and/or genital area, as well as generalized swollen glands
- A cough that persists for more than one month
- Persistent fever and/or night sweats

Physical Examination Findings

- Thinness from weight loss
- White tongue
- Swollen glands
- Fever

Comments

Because the condition is incurable, HIV prevention is critical.

Management

The condition is incurable; however, opportunistic infections in HIV-positive clients can be managed. Counseling such clients is directed at changing risky sexual behaviors, maintaining/improving personal hygiene, offering nutritional advice, and encouraging positive living.

2

Sexual and Reproductive Health Assessment

A health assessment is an essential part of men's reproductive health care. It consists of obtaining the client's sexual and reproductive health history, which includes prior illnesses, surgeries, and inherited traits, and performing a routine genital examination. The information obtained during the assessment is the foundation for providing effective, efficient reproductive health care. This information, along with the findings from the physical examination, will enable you to determine how to help the client. Because men visit health care facilities infrequently, service providers often take the opportunity to screen for men's sexual and reproductive health conditions when they come in with other concerns. This chapter discusses sexual and reproductive health history taking; performing a genital examination is discussed in Chapter 3.

Importance of Taking a Sexual and Reproductive Health History

Taking a sexual and reproductive health history is a critical component of providing sexual and reproductive health care for men. Inaccurate or incomplete histories can result in inadequate screening or in the inadequate treatment of potentially life-threatening conditions. As a service provider, you must be prepared to hear a wide range of sexual and reproductive health concerns. A kind and straightforward assessment is not only essential and professional, but also compassionate.

Goals, Timing, and Scope

The objectives of taking a sexual and reproductive health history are:

- To identify symptoms of genital, sexual, and reproductive disorders
- To obtain information about sexual abuse, traumas, and injuries
- To identify risk factors for sexually transmitted infections (STIs)
- To elicit psychological concerns relating to the genitals, body image, sexuality, sexual orientation, and sexual dysfunction
- To determine whether the client needs additional information or education about sexual and reproductive health matters, such as contraceptive options

The timing and scope of taking a sexual and reproductive health history may be determined by a specific situation or may be part of a routine medical history. When a client does not have any specific sexual or reproductive health concerns, the questions you ask can be open-ended questions to screen for possible problems, and then narrowed for in-depth questioning whenever the client's answer raises additional issues. On the other hand, when a client has a specific, acute problem, a narrowly focused history may be required. Giving a client an opportunity to discuss sexual and reproductive health does not mean

that the client's entire history and the whole subject have to be discussed during the initial visit to the facility. A subsequent visit (or referral) can be scheduled in order to explore a subject in more depth once it has been raised.

An Effective Step-by-Step Approach

It is essential to provide an atmosphere of acceptance for the client so that he feels comfortable discussing his history, fears, concerns, current symptoms, and future expectations. In an environment in which a useful sexual and reproductive health history is obtained, respect the client's right to his own values, attitudes, and behavior, even if you do not agree with them. Also explain to the client that the information he provides is strictly confidential and that only critical details are recorded on his chart. Only other service providers who treat the client will have access to his chart.

Being patient while taking a client's sexual and reproductive health history is also essential. Because of the sensitive and personal nature of the information, the question-and-answer pace of the discussion may be slow. Be prepared to wait longer than the usual amount of time for the client to decide what to say and how to answer each of your questions. If you hurry on to the next question too quickly, you will most likely fail to obtain important information.

It is also essential that you observe the client's nonverbal cues (e.g., facial expressions, appearing nervous or worried, looking downward, or crying). These cues may indicate that the client is experiencing strong emotions or failing to disclose significant information. If you notice any nonverbal cues, be sure to ask the client more questions in an attempt to find out what he is feeling or thinking.

Remember that because sexual and reproductive health information is private, personal, and even secret, the client may not initially articulate his primary concern. Sexual concerns may be the reason why the client is vague or unclear when describing his symptoms or when you suspect a functional overlay (e.g., headache, anxiety, or fatigue); this is particularly true in primary health care settings. Careful and compassionate listening can make all the difference.

To effectively obtain a sexual and reproductive health history, follow these four steps:

1. Make the client feel comfortable.
2. Ask direct questions about the client's sexual and reproductive health.
3. Address the client's questions and concerns.
4. Ask follow-up questions specifically related to the client's questions and concerns.

Make the Client Feel Comfortable

- Provide a quiet, private room that is free of interruptions.
- Have the client remain fully dressed and seated at eye level.
- Greet the client, and introduce yourself; wear a name tag so that he knows who you are.

- If an interpreter is necessary, use one who has experience in interpreting sexual and reproductive health concerns and understands the importance of confidentiality. If possible, assess the appropriateness of using interpreters of the opposite sex from the client. This depends on the client, the culture, and the individual circumstances. Avoid having the client's family members or friends interpret unless an emergency exists. Sometimes, family members or friends make assumptions, provide only medical information and not mention other related issues, or provide *all* the information and not let the client respond.

Ask Direct Questions about the Client's Sexual and Reproductive Health

- Explain to the client that you will be asking him several questions about sensitive health concerns.
- If the client has been accompanied by family members or friends, offer him the chance to reassess whether he wants them to remain in the room with him during the sexual and reproductive health history taking.
- Ask clear, direct, and unambiguous questions regardless of your own discomfort or fear of embarrassing the client. He has a right to be heard in a nonjudgmental way, even if your values differ from his.
- Ask open-ended questions to identify any areas of concern.

Address the Client's Questions and Concerns

- Reassure the client that other men ask similar questions and have similar concerns.
- Do not become anxious about periods of silence. They enable the client to be more frank about his concerns. The client may need time to sort out how much he wants to reveal.
- Encourage the client to discuss his concerns in his own words.
- Listen attentively as he presents his reason(s) for seeing a service provider.

Ask Follow-Up Questions Specifically Related to the Client's Questions and Concerns

- Narrow your follow-up questions about the client's questions and concerns to elicit additional information when necessary. Begin an organized approach to your follow-up questions so that you can understand the condition's onset, location, duration, character, and extent, as well as any associated factors and prior diagnoses and treatments.
- Give the client an opportunity at the end of the history taking to raise issues he did not mention earlier.
- Pay close attention to the client's last question or concern as the history taking is about to end or as he leaves the room. Because men are often uncomfortable discussing sexual and reproductive health issues openly, a client may disguise his real concern by making a joke or a seemingly casual remark. He might say, "Well, I guess that will satisfy my wife." Frequently, this is the first indication that the client has a sexual concern. Take such jokes and remarks seriously, and follow up, at least briefly, on them with appro-

pritate questions. Respond to these comments as if the client really wants information or an opportunity to talk—he probably does. But you also need to recognize that because of time and/or schedule constraints, you may have to ask the client to return for another visit to discuss any significant issues that were identified toward the end of the initial visit.

Major Components of Sexual and Reproductive Health History Taking

There are seven major components of taking a sexual and reproductive health history. For each component, the reasons for needing the information are provided, along with some sample questions that will enable you to explore the subject if the client's initial answers indicate that you will need additional information before making a diagnosis or risk assessment.

1. Number and Type of Sexual Partners

Why This Information Is Needed

- To determine the client's level of risk for contracting an STI
- To obtain information without using terms that can be interpreted inaccurately or as value-laden (e.g., *homosexual, bisexual, heterosexual*)

Sample Questions

- Do you have sex with women, men, or both women and men?
- How many partners have you had in the last year?
- Have you had any new partners in the past few months?
- Have you ever had any casual or one-time partners?
- Have you ever had any partners you would consider risky in terms of HIV/AIDS or other infections? What makes these partners risky?
- Have you ever been infected by any partners? [If the client answers yes, ask:] How were you and your partners treated? How are you and your partners now?

2. Sexual Activities

Why This Information Is Needed

- To determine the client's level of risk for contracting an STI
- To determine the focus of the genital examination and the need for throat, rectal, and urethral (in the client's partner) cultures to test for STIs

Sample Questions

- What kind of sexual activities do you engage in? (Modify these questions according to the client's prior answers to the questions about the number and type of partners he has had and other information he has provided.)

- Penis in vagina (penile-vaginal sex)?
- Penis in mouth (fellatio)?
- Mouth on vulva (cunnilingus)?
- Your penis in your partner's anus (anal sex)?
- Your partner's penis in your anus?
- Any other sexual activities? [This question is particularly important when the client's prior answers or other information he has provided indicate, possible trauma or infection transmission through such activities as oral-anal contact or the use or sharing of sexual devices.]

3. Risk for Contracting STIs

Why This Information Is Needed

- To identify whether the client needs information about risks and/or protective measures for STIs, including gonorrhea, hepatitis, HIV/AIDS, syphilis, and other STIs that you are likely to see in your clients
- To encourage the client to evaluate his own risks and sexual behaviors so that he can determine whether he is adequately protecting himself

Sample Questions

- In what ways, if any, are you protecting yourself from HIV/AIDS and other STIs?
- Are you:
 - Having sex with someone who has sex with others?
 - Having sex with someone who is HIV-positive?
 - Having sex with someone who uses intravenous (IV) drugs, injection drugs, or vitamins?
 - Having sex with someone whose sexual history and HIV status you do not know? [If the client answers yes, ask:] How do you know this person is not HIV-positive?
 - Having unsafe sex?
- Do you protect yourself with all of your partners or only some of your partners?
- Do you protect yourself consistently (every time) you have sex, or do you sometimes have unsafe sex?
- Do you drink alcohol or use drugs? [If the client answers yes, ask:] Does this affect whether you protect yourself when you have sex?
- Have you taken an HIV test? [If the client answers yes, ask:] When did you take the HIV test? [If the client answers no, ask:] Are you willing to consider taking an HIV test? [If the client answers yes, suggest that he make another appointment. If the client answers no, explain the importance of taking an HIV test. If the test reveals that he is HIV-positive, he can be treated for the infection and receive follow-up care. If the test reveals he is HIV-negative, he can receive counseling to prevent him from becoming infected with HIV.]

4. Symptoms of Infections, Injuries, and Disorders

Why This Information Is Needed

- To determine if the client has an STI or an injury to or a disorder of his sexual and reproductive organs, such as an infection or enlargement of the prostate gland
- To inform the client of signs and symptoms that require medical care when they appear

Sample Questions

- Do you have any problems with your genitals, such as burning or pain during urination, discharge from your penis, bumps or sores on your genitals, or pain or lumps in your genital area? (Follow up on any specific signs and symptoms that the client mentions.) [If the client answers yes, ask:] What color is the discharge? Is the sore painful? When did you notice the discharge [or sore]? Did you notice a change in the discharge? Did the sore become more painful?
- Do you have any pain, lumps, or heaviness in your testes?
- Do you have any other problems with urination, such as having difficulty emptying your bladder, urinating frequently, having to get up during the night to urinate, or dribbling?
- Do you have any lower abdominal pain?
- Do you have dark urine or any yellowing of your skin or eyes?
- Have you ever had any history of genital injuries or surgery?
- Do you want to be checked for STIs today?
- Do you routinely examine your testes and other genitals?
- Do you have any questions about STIs or other men's sexual and reproductive health problems?

5. Sexual Satisfaction

Why This Information Is Needed

- To assess the client's sexual concerns
- To evaluate the client's possible sexual dysfunction
- To educate the client about sexual satisfaction issues
- To reassure the client that his sexual concerns will be addressed, that his concerns are normal, and that other clients have sexual concerns also

Sample Questions

- How satisfied are you with your sex life at this time?
- Do you have any doubts, problems, or concerns about how you function sexually?
- Do you have any problems achieving or maintaining an erection or reaching orgasm?
- Have you had any change in how often you have sex or how interested you are in sex?
- Have you noticed any change in your sexual functioning? (This question is particularly important if the client has any chronic diseases [e.g., heart disease], has a history of

- relevant diseases or surgeries [e.g., coronary bypass surgery], or takes medications that may affect his sexual functioning [e.g., antidepressants or antihypertensives].)
- Have you had any change in your alcohol, drug, or tobacco use? (Ask this question only if the client's prior answers or other information he has provided indicate alcohol, drug, or tobacco use, which may be related to sexual dysfunction. [If the client answers yes, ask:] Has this change affected your sexual functioning?)
 - Have you ever been forced to have sex or had abusive sexual contact?
 - Do you have any sexual problems with your current partner?
 - Have you or your partner had any problems or illnesses that have affected your sex life?
 - Do you have any problems with controlling your anger or feeling depressed (lethargic, unable to sleep)?
 - Has anything affected the way you feel about yourself as a man (e.g., unemployment, mental health problems)?
 - Do you have any sexual problems or concerns that you want to talk about today?

Overview: Using Sexual Slang

When you take a client's sexual and reproductive history, the client may use common, slang, or colloquial terms to describe his body, sexual behaviors, and sexual function. It is important for you to understand the medical and common or slang terms used in your local area and to be comfortable hearing (and perhaps using) common or slang terms in order to communicate effectively with the client.

You have several ways to help the client learn and use the medical terms. For example, you might say to a client, "You have a sore on your dick? Oh, another word for *dick* is *penis*. I will probably call it a penis more often, but it means the same thing." In this way, the client learns the correct term without feeling criticized or unknowledgeable for having used the slang term.

Medical terms that may be used when providing men's sexual and reproductive health services include:

- **Body parts:** penis, scrotum, testes/testicles/male gonads, clitoris, vagina, vulva, breasts, anus
- **Sexual behaviors and related terms:** erection, masturbation, sexual intercourse, penile-vaginal sex, coitus interruptus, oral sex (*fellatio* when performed on a man; *cunnilingus* when performed on a woman), anal probing, anal receptive intercourse, anal sex, withdrawal, ejaculation, orgasm, condom, impregnate, erection, erectile dysfunction, gonorrhea, syphilis, infertility, pre-ejaculate, semen, vasectomy

6. Contraception

Why This Information Is Needed

- To assess whether the client and his partner need contraception
- To determine whether the contraceptive method that the client and his partner are using is satisfactory for both partners, and whether they are using it correctly
- To encourage the client to evaluate his role in preventing pregnancy in their relationship

Sample Questions

- How important is it to you and your partner to prevent pregnancy at this time? [If the client answers that preventing pregnancy is *not* important to him and his partner, continue with the next component. If the client answers that preventing pregnancy *is* important to him and his partner, continue with the rest of the questions in this component.]
- Do you and your partner agree on whether you want to prevent pregnancy now?
- Which contraceptive method(s) are you and your partner using to prevent pregnancy? [If the client and his partner use a female-directed method, ask him:] Are there ways in which you help your partner use this contraceptive method?
- How satisfied are you and your partner with your current contraceptive method(s)?
- What would you or your partner change about your current contraceptive method(s)?
- Have you or your partner had any illnesses or problems that interfere with your current contraceptive method(s)?
- Do you understand how emergency contraception works?
- Can you talk with your partner about contraception and sexuality?
- Do you have any questions about preventing pregnancy?

7. Infertility and Pregnancy

Why This Information Is Needed

- To elicit the client's reproductive health history
- To assess the client's desire and/or ability to have (more) children

Sample Questions

- Have you ever made a woman pregnant?
- Do you have any children? [If the client answers yes, ask:] How many children do you have? How old are they/is he or she?
- Do you want any (more) children? [If the client answers yes, ask:] When? How many? With your current partner?
- Do you have any concerns about your ability to make someone pregnant? [If the client answers yes, follow up with additional appropriate questions or refer the client to the appropriate specialist.]

- Are you and your partner trying to conceive? [If the client answers yes, ask:] How long have you been trying to conceive?
- Has your partner had any children?
- Have you or your partner seen a service provider, been tested, or been treated previously for infertility? [If the client answers yes, ask:] Can you give me details about these tests and treatments?
- Have you had a semen analysis?
- Does your partner have irregular menstrual cycles? (If the client's partner has irregular menstrual cycles, this could indicate **anovulation**, which is a lack of **ovulation**.)
- Does your partner have pain while she is menstruating (has her period), especially **progressive pain** while she is menstruating? (If the client's partner has pain [not just menstrual cramps] while she is menstruating, this could indicate **endometriosis**, which can cause infertility.)
- Has your partner ever had, or has she had any signs and symptoms that indicate, uterine **leiomyomata**, **menometrorrhagia**, pain while she is menstruating, deep pelvic pain with sexual intercourse, or pelvic pressure?

Global Screening Recommendations

Several national and international medical organizations have made official recommendations regarding when and which types of physical and laboratory screening tests should be performed on men. The following are global screening recommendations for various sexual and reproductive health conditions.

Note: It is likely that you will not be able to perform all of the screening tests described below at your health care facility. So it is important to begin to develop a list of local laboratories and other organizations to which you can refer clients when such screening tests are necessary. ***Do not screen for any condition that you cannot treat or for any condition for which the client will not have access to treatment (if the screening test is positive).*** Review the screening tests that follow, and identify the ones that you can perform at your facility and the ones for which you will need to refer clients to other facilities.

HIV (Voluntary Screening)

Assess the client's risk for HIV by carefully taking his sexual and reproductive health history and inquiring about injection drug use. Periodic screening is recommended for any client at increased risk for HIV (U.S. Preventive Services Task Force, 1996). Testing for HIV is suggested in facilities in the developing world in which such testing is available.

Prostate Cancer

Two screening tests are used to detect prostate cancer: the **digital rectal examination (DRE)** and the prostate-specific antigen (PSA) test. The DRE has been used for many years as a screening test, but its ability to detect prostate cancer is limited, as some tumors form in areas

of the prostate gland that the DRE cannot reach. These areas are in the center of the prostate gland, where the DRE cannot feel the tumor, and directly on top of the prostate gland, where the DRE cannot reach the tumor because it is too high. Sometimes, service providers also have difficulty distinguishing between benign abnormalities and prostate cancer.

The PSA test measures an enzyme in the blood that can rise naturally as men age and when men have prostate gland abnormalities. However, it cannot distinguish between prostate cancer and benign growths or other conditions, such as prostatitis. The PSA test also fails to detect some prostate cancers.

There is some controversy over the early detection and treatment of prostate cancer. Although screening detects some prostate cancers early in their growth, it is not yet known whether screening saves lives or whether treatment reduces disability and death from disease. For some men, screening and treatment may be more harmful than helpful because current screening tests do not indicate which prostate cancers will grow slowly. Slow-growing prostate cancers may not require surgery or radiation, which can cause impotence and incontinence. Therefore, the harm associated with prostate cancer treatment can outweigh the benefits. Additionally, it is not clear how well treatment works for fast-growing prostate cancers.

The U.S. Centers for Disease Control and Prevention (CDC) does not recommend prostate cancer screening, but it does recommend that clients be provided with up-to-date information about screening, including its potential harm and benefits (CDC Web Site).

Testicular Cancer

Most testicular cancers are first detected by the client, either unintentionally or through genital self-examination; some are discovered during routine genital self-examinations. However, no studies have been conducted to determine the effectiveness of genital self-examination or genital examination performed by service providers in reducing the mortality rate from testicular cancer.

The early detection of testicular cancer may have little to no effect on mortality, since it is so high. However, it may have a practical effect on therapy. The more advanced is the testicular cancer, the higher are both the number of courses of chemotherapy and the extent of surgery required for treatment. Clients diagnosed with localized testicular cancer require less treatment and have lower morbidity than those with more advanced disease.

Sexual and Reproductive Health History Taking Case Studies

The following case studies illustrate the common men's sexual and reproductive health signs, symptoms, and concerns that service providers must consider when taking a sexual and reproductive health history. By asking the suggested questions and performing a genital examination, you will obtain enough information to make a differential diagnosis and plan a course of treatment.

Case Study 1: Testicular Torsion

Signs, Symptoms, and Concerns

You are Mohammed, a 24-year-old Egyptian graduate student. You come to the health care facility with scrotal pain and swelling. The problem started about two hours ago, and you thought it would get better on its own because it did when it happened before. You would prefer to talk to a male service provider, but you will talk to a female provider if necessary because you are very worried that you may have cancer. The pain is getting worse, and you have nausea and low-grade fever and are vomiting. You worry that if you have cancer, the treatment will involve castration, you will never have children, you will not carry on your family name, and you will cease to be “a man.”

Suggested Questions

- How often has this happened? (A client with a history of testicular torsion may mention prior episodes of acute pain that resolved themselves.)
- What were you doing when this happened? (Was the client straining? Was he lifting? Was he having sex?)
- Do you have a fever?
- Does it hurt to urinate?
- Does your urine have blood in it?
- Have you ever been diagnosed with an STI?

Physical Examination Findings

The client's testicle is high in the scrotal sac and has a horizontal orientation.

Differential Diagnosis

A client with sudden-onset scrotal pain and swelling should be considered to have testicular torsion until proven otherwise. **The condition is a medical emergency and requires prompt treatment and referral.** Misdiagnosing the condition can lead to testicular loss and infertility.

Other possible causes for the client's condition are:

- *Epididymitis and orchitis.* The client may have a more gradual onset of pain, urethral discharge, a history of urinary tract infection, and a work or exercise history consistent with lifting and straining. Epididymitis and orchitis are the disorders most commonly misdiagnosed as testicular torsion. These conditions are rare before adolescence.
- *Hydrocele.* The client may have painless scrotal swelling. During transillumination, the scrotal contents are visible.
- *Idiopathic scrotal edema.* The client may have thickened, edematous, and often inflamed scrotal skin, but the testicle is nontender and is normal size.
- *Incarcerated scrotal hernia.* The client may have signs and symptoms that are similar to those of testicular torsion, but he may also have abdominal pain and pain in the geni-

tal area. You may be able to diagnose the condition by carefully examining the inguinal canal.

- *Testicular torsion or torsion of epididymal appendage.* The client usually has localized tenderness in the upper pole of the testicle. Occasionally, light-skinned boys may have a **blue dot sign**. Systemic symptoms are rare. The condition usually occurs in young boys.
- *Testicular tumor.* The client may have a more gradual onset of pain, although pain is not generally a primary symptom. **Infarction** of the tumor can complicate the diagnosis.

Management

Depending on the resources available at your health care facility, the outcome of the condition can be very different. Performing an ultrasound (if it is available at your health care facility) may help you diagnose the condition. With a prompt diagnosis (within six hours of onset) you can attempt manual detorsion, which may be successful. If manual detorsion is not successful, refer the client to a surgeon for testicular rescue.

Case Study 2: STI

Signs, Symptoms, and Concerns

You are Effesone, an 18-year-old man who lives in a rural village 22 miles from Addis Ababa, Ethiopia. Two days ago, you noticed a blister on your penis, and the blister has gotten larger. You were not too worried originally because it was not that painful, but now you are worried because you have pain and swelling in the genital area. You also have a low-grade fever. This is the first time you have had something like this. You are also uncomfortable talking about sexual activity.

Suggested Questions

- How many blisters did you notice initially?
- Do you have any discharge from your penis?
- Are you sexually active?
- Do you have sex with other men?
- Do you practice safer sex?

Physical Examination Findings

The client has a sharply circumscribed ulcer with some yellow exudate, as well as inguinal lymph node enlargement.

Differential Diagnosis

Genital ulcers are most likely caused in young men by an STI. Although genital ulcers are also most frequently caused by an STI in older men, genital ulcers in older men have other causes, such as malignancies and systemic diseases. Infectious causes of the condition include chancroid, HIV infection, herpes simplex, lymphogranuloma venereum (LGV),

and syphilis. Noninfectious causes of the condition include cancer, reactions to medications, and trauma.

Possible causes of the client's condition are:

- *Chancroid*. The client has a painful ulcer that may be sharply marked (has a clearly defined margin or edge) and is associated with inguinal lymph node swelling. The lymph nodes can rupture. The condition is caused by *Haemophilus ducreyi*.
- *Herpes simplex*. The client has multiple vesicles in clusters that can open, forming a shallow, painful ulcer. The condition is caused by the herpes simplex virus.
- *HIV infection*. The client has different types of lesions depending on the particular opportunistic infections he has. These lesions include the white plaques of *Candida* infection and the painful **dermatomes** of herpes zoster.
- *Lymphogranuloma venereum (LGV)*. The client has a small, painless ulcer that may not be observed because it heals quickly. He may also have large, painful inguinal lymph nodes. The condition is caused by *Chlamydia trachomatis*.
- *Syphilis*. The client has a painless, swollen ulcer with smooth, firm borders. It is usually singular and can heal spontaneously. The condition is caused by *Treponema pallidum*.

Management

Accurate diagnosis is particularly important with STIs. If adequate screening tests are not available at your facility, treat the client presumptively with appropriate medications. The client's partner(s) should also be treated. This is an opportunity to educate the client about sexual behaviors that can put him at risk for HIV infection and other STIs. Several studies indicate that the presence of genital ulcers is an important risk factor for the sexual transmission of HIV infection.

Case Study 3: Erectile Dysfunction

Signs, Symptoms, and Concerns

John is a 65-year-old man who lives in the Ukraine and comes to your health care facility with "sexual problems." He is slightly embarrassed and has difficulty responding to questions. Upon further questioning, he admits that he has had trouble maintaining an erection. The problem has been gradually getting worse for the past four years, and he now has trouble achieving an erection. John says that he never told his regular service provider about this problem because he was embarrassed. However, he is not satisfied with his sex life and wants help. He thinks that this problem is affecting his marriage. John also says that he has had hypertension for 10 years, and that recently his service provider told him that his cholesterol level is high. He has a family history of coronary artery disease, hypertension, and hypercholesterolemia.

John tells you that he takes two hypertension medications. He had smoked one pack of cigarettes a day for 30 years, but he quit smoking two years ago. He also drinks three beers each night.

He describes his work situation and home life as stressful. He is worried about losing his job, and his son has been arrested.

Suggested Questions

- What aspects of your sex life are you unsatisfied with at this time?
- Can you maintain an erection until your partner reaches orgasm?
- Do you ejaculate?
- Have you had any prior surgeries? (*Note:* Some surgeries interfere with blood or nerve supply, or require follow-up medication(s) that interfere with erection.)
- What other medications do you take, including any nonprescription and natural medications?
- How much caffeine do you drink each day?
- What is it about your home life and your work that makes you feel stressed?
- Do you have any problems with your moods, such as feeling angry and not being able to control your anger, or feeling depressed (lethargic, unable to sleep)?
- Have you ever had this sexual problem before?

Physical Examination Findings

The client has a blood pressure reading of 160/90 mm Hg. Otherwise, his findings are normal.

Differential Diagnosis

Erectile dysfunction usually has many causes: organic, physiologic, endocrine, and psychogenic. Generally, erectile dysfunction is divided into organic and psychogenic impotence, but most men with organic causes usually have a psychological component. Almost any disease may affect erectile function by altering the nervous, vascular, or hormonal systems. Various diseases may produce changes in the smooth muscle tissue of the corpora cavernosa or influence the client's mood and behavior.

Possible causes for the client's condition are:

- *Coronary artery disease.* The client has coronary artery disease. This is a risk factor for erectile dysfunction, and recent studies indicate that merely having a history of hypercholesterolemia points to an underlying vascular cause.
- *Excessive alcohol intake.* The client has a problem with excessive alcohol intake, which is directly toxic to the testes and can result in decreased testosterone production. Excessive alcohol intake is also directly toxic to the liver. The resulting liver dysfunction can cause an imbalance in testosterone and estradiol metabolism, which is often associated with gynecomastia.
- *Hypertension.* The client has long-standing hypertension. His elevated blood pressure indicates that the hypertension is not well controlled.
- *Medication side effects.* The client has been taking two medications that have been associated with erectile dysfunction.

- *Smoking.* The client had a long-standing smoking habit. Smoking increases the risk for vascular disease.
- *Stress.* The client has many sources of stress, which can also contribute to erectile dysfunction.

Management

In the absence of an organic cause, or together with treatment for erectile dysfunction, psychological support and reassurance are important to the management of this disorder.

Case Study 4: Paraphimosis

Signs, Symptoms, and Concerns

Usha, who lives in India, brings her 5-year-old son, Dinesh, to your health care facility. She says that he has been complaining of pain in his genital area since that morning. He has been cranky and crying intermittently. He told her that he could not urinate. Usha also says that Dinesh has no health problems.

Suggested Questions

- Has this ever happened before?
- Does Dinesh have a fever?
- Did Dinesh have any trauma in the genital area?
- Does Dinesh clean the genital area daily?
- Is Dinesh circumcised?

Physical Examination Findings

The client has penile skin edema. The genital area is painful to touch. The foreskin is retracted and cannot be returned to its normal anatomic position. Another possible finding is that the client appears to have been circumcised and the skin behind the foreskin may look asymmetrically red and swollen (this is the constricting retracted foreskin).

Differential Diagnosis

The foreskin usually provides a cover for the glans, and retracting the foreskin is usually easy. However, in some young boys, retracting the foreskin is difficult, which may lead to infection, inflammation, edema, fibrosis, and scarring. Obstruction to urination also may occur, and urinary infection can result. Additionally, such chronic inflammation may lead to penile cancer.

Note: This condition is usually discovered in newborn infants.

Possible causes for the client's condition are:

- *Balanoposthitis.* The client has an inflammation of the superficial area of the foreskin, involving the distal foreskin. The condition can look like paraphimosis because of the red, swollen glans. Balanoposthitis can occur in boys, people with diabetes, and men

with poor hygiene. The condition can be caused by an irritation resulting from contact with external products or by infections, such as *Candida*.

- **Paraphimosis.** The client has a retracted foreskin that cannot be returned to its normal anatomic position. Paraphimosis is the most serious diagnosis for the client. **This condition is a medical emergency and requires prompt treatment and referral.** Paraphimosis leads to a tight ring of skin around the glans. Eventually, edema develops and leads to decreased blood flow to the penis and then to necrosis. Boys, and even men, can get penile constriction from other objects that can wrap around the penis, such as hair.

Three types of clients can develop paraphimosis:

- Young boys who have a retracted foreskin and swelling
- Men with chronic penile infections who develop contracture of the foreskin
- Men with catheters who do not have their foreskin returned to its normal anatomic position after catheter insertion
- **Phimosis.** The client has **stenosis** of the foreskin, which prevents foreskin retraction. The condition is not usually an emergency. Phimosis often occurs in young boys, and by adolescence, almost all boys can retract their foreskin. The only reason to address this condition is urinary retention.

Management

The client most likely has paraphimosis. Manual reduction can be attempted. Refer the client to a surgeon immediately if the foreskin cannot be returned to its normal anatomic position. Elective circumcision should be performed as soon as the foreskin is healthy.

Case Study 5: Urinary Retention

Signs, Symptoms, and Concerns

Louis is a 66-year-old man who lives in Tunis. He comes to your health care facility in the late afternoon, accompanied by his son. Louis's main complaint is that he has not been able to urinate since yesterday, and now his abdomen feels full and painful. He says that he has been healthy all of his life and has never been to a service provider. Louis admits that for the past few months, he has had trouble emptying his bladder. He has difficulty initiating a urinary stream. When the urine does come out, the stream is less forceful than usual. Louis also says that he feels like his bladder does not empty completely. He is uncomfortable.

Suggested Questions

- Have you had any weight loss?
- Do you have back pain?
- Do you have a fever or chills?
- Have you had any urinary tract (or bladder or penile) infections?
- Have you had any traumas?
- Has anyone in your family had cancer?
- Do you have diabetes?

- Do you use any medication(s)? [If the client answers yes, ask:] What medication(s) do you use?
- Do you have difficulty walking?
- Does your urine have blood in it?

Physical Examination Findings

The client has pain during palpation in the suprapubic region. A full bladder can be palpated. The client's genitals are normal. During a rectal examination, the findings indicate that the client has a smooth, symmetric, enlarged prostate gland. His neurological examination findings are normal.

Differential Diagnosis

Urinary retention refers to the function or structural changes in the urinary tract that impede the normal flow of urine in a variety of settings and is a fairly common cause of **obstructive uropathy**. It is relatively common in all age groups—e.g., urethral valves in infants, urinary tract stones in young adults, and benign prostatic hyperplasia (BPH) in elderly men. The obstruction can occur at any level of the urinary tract, from as high as the **renal tubules** to as low as the urethral meatus. The clinical manifestation depends on the location and degree of the obstruction, and whether it is acute or chronic.

The client may be in pain and may present with a renal change in urine output or frequency, hematuria, palpable masses, hypertension, and recurrent urinary tract infections.

Possible causes for the client's condition are:

- ***Benign prostatic hyperplasia (BPH)***. The client usually has a nonnodular, symmetric enlargement of the prostate gland. He may also have progressive symptoms, including urinary hesitation, urinary frequency, decreased force of urinary stream, and straining during urination. BPH is the most common cause of urinary retention.
- ***Bladder neoplasm***. The client has painless hematuria. The tumor can bleed and cause a clot to form, which leads to obstruction of urine flow from the bladder through the urethra.
- ***Medication side effects***. The client takes medications that can lead to urinary retention. The list of possible medications is extensive and includes anticholinergics, antidepressants, hypertension medications, hormones, and spinal anesthesia.
- ***Metastatic disease***. The client has metastatic disease, which is a primary malignancy of the bladder, prostate gland, or gastrointestinal tract. The condition may cause urinary retention, usually by pressure effects. Metastatic disease may also cause neurological impairment of spinal cord function. The condition should be considered in any client with no obvious obstructive etiology.
- ***Multiple sclerosis***. The client has multiple sclerosis. Symptoms usually occur between ages 20 and 50 and occur more frequently in women than in men. The condition produces many varied neurological signs and symptoms, depending on which body parts are

involved. The client may have some combination of progressive spastic leg weakness, instability, and impairment of bladder function. Bladder dysfunction includes urinary urgency with incontinence or hesitancy and incomplete emptying of the bladder. However, multiple sclerosis does not usually cause urinary retention. The signs and symptoms of multiple sclerosis lessen over time, but as the condition progresses, new signs and symptoms often appear, old signs and symptoms recur, and residual symptoms increase.

- *Paraphimosis*. The client has a retracted foreskin for a prolonged period of time, which leads to swelling and constriction. **This condition is a medical emergency and requires prompt treatment and referral** (see page 1.12).
- *Phimosis*. The client has a narrowing of the opening of the foreskin that prevents the foreskin from being retracted. The opening may be dilated with a hemostat to relieve the obstruction.
- *Prostate cancer*. The client may have symptoms of a malignancy, such as weight loss, fatigue, and pain. During a rectal examination, the findings indicate that the client has a nodular or hard prostate. Prostate cancer does not often cause a voiding obstruction, but it should be considered as a possible differential diagnosis.
- *Prostatitis*. The client may have a fever, pain during urination, and low back pain. The client's urine is cloudy. During a rectal examination, the findings indicate a warm, tender prostate gland. Prostatitis is an infection of the prostate gland. The condition can be diagnosed by carefully taking the client's history, performing a rectal examination, and urinalysis. Prostate massage should be avoided to prevent further spread of the bacteria.
- *Spinal cord trauma*. The client has additional motor symptoms and a history of severe trauma to the back or backbone. Spinal cord tumors do not usually cause urinary retention.
- *Urethral strictures*. The client has scar tissue that can surround the urethra. Urethral strictures are usually caused by trauma, such as catheter placement, radiation therapy, or prior infections.

Management

Performing a urinalysis will help you diagnose the condition. Carefully inserting a catheter relieves the obstruction. If the client has a urethral stricture, a special catheter may be required. Refer the client to a specialist for further testing. If the client has a history that is consistent with BPH, doing a PSA test may be helpful when a differential diagnosis of prostate cancer is being considered.

3

Performing a Genital Examination

This chapter provides the information that service providers need to correctly perform a genital examination on a male client. It explores what providers must do before performing a genital examination, including setting up the examination area and preparing the client psychologically and physically. The chapter also identifies and describes the parts of a genital examination, with step-by-step directions; discusses gentle, respectful verbal and physical techniques for performing a testicular and prostate examination; and explains the techniques for obtaining urine and rectal specimens and prostate secretions. A strategy for incorporating client education during a genital examination is also discussed.

Before the Genital Examination

Before the genital examination can begin, the service provider must take several steps to ensure that the examination area and the client are fully prepared. This section discusses the preparation of the examination area that a provider must do beforehand, as well as the psychological and the physical preparation that a client must undergo before a genital examination.

Preparing the Examination Area

The first step is to gather and arrange all the supplies that you will need to perform the genital examination, including any tests, cultures, and client-education materials.

You will need a chair and examination table, pens to write the examination findings on the client's chart, and a bright light source. A good light source is essential; without one, you will not be able to accurately observe during the examination. You will also need a drape, examination cover, or gown to offer the client to ensure his comfort and to protect his modesty; during the examination, you will uncover only the area being examined at the time. Have extra charts, referral forms, and referral sources available. Be sure that all the required supplies are conveniently located in the examination area.

The following is a checklist of supplies needed for the genital examination:

- Drapes, examination covers, or gowns
- Latex or vinyl gloves
- A light source and magnifying glass for assessing skin lesions
- Vinegar (dilute acetic acid solution) for assessing possible genital warts
- Urethral swabs for collecting cultures
- Glass slides for specimens
- Specimen cups for collecting urine
- Test kits and reagent for collecting stool for occult blood testing

- Supplies for drawing blood (tourniquet, blood tubes, labels, needles, syringes, small bandages, and sharps container [disposal container for used needles])
- Lubricant for performing rectal examinations
- Viscous lidocaine for topical application and/or injectable local anesthetic
- Items for client comfort (table paper, a pillow, tissues, cloth covers for foot stirrups if the lithotomy position will be used)
- Free condoms
- Client-education materials that are culturally and age-appropriate and are written out at the appropriate literacy level, such as a diagram of the male anatomy, an anatomical-development chart, information about condoms and sexually transmitted infections (STIs), and other community resources for services
- Extra charts, referral forms, and referral sources

At referral sites, having the following supplies available will be helpful for **higher-level assessment**:

- For **diagnostics: anosscopes, orchidometer, and a Wood's light** (*Note: An anoscope is inserted into a client's anus, so it is important to have several anosscopes available to prevent transferring microorganisms from one client to another.*)
- For diagnostics, depending on the arrangements with a local laboratory (some laboratories perform only certain tests, so depending on which tests your facility performs routinely, you will need specific items): cover slips, Gram stain supplies, a microscope, paper reagent strips ("dipsticks"), saline solution, specimen collection tubes for **special tests**

Other supplies will be needed depending on the level of care and the specific procedures to be performed during the genital examination. The decision to provide advanced care depends on other community resources, budget, adequate staff training, and a local laboratory to provide a **histologic** examination of biopsy specimens.

Preparing the Client

It is helpful to view the genital examination as a process you do *with* the client, not *to* the client. Generally, men are somewhat anxious and ambivalent when they go to health care facilities. They may be afraid that they have a serious physical problem, or that the examination or procedures will be painful or embarrassing. They also may be afraid that they will have to share detailed information about their private life or their sexual behaviors. Therefore, before the examination begins, make every effort to prepare the client both psychologically and physically and to ensure that he is as comfortable as possible. This includes:

- Establishing a rapport with the client
- Explaining to the client what the examination consists of
- Preparing the client for any painful or potentially embarrassing procedures
- Educating the client about his genital health

Making the client feel comfortable requires treating him in a nonjudgmental and unbiased manner. Never assume that because a client is older, he is not concerned about sexual function, or that because he is not married or does not have a female partner, he is not sexually active. Finally, do not assume that the client's partner is female.

Preparing the client for a genital examination includes providing him with adequate information, preparation, and instructions. Always explain to the client what you plan to do during the examination (the sequence of steps and the steps themselves) or for treatment, and why you are doing it. The client has the right to know about all of the parts of the examination and treatment, as well as the right to refuse them. The client also has the right to make an informed choice, which is a voluntary, thoughtfully considered decision based on a clear understanding of the information and options presented to him.

If the client tells you before the genital examination that he thinks that he will not be able to tolerate it because of discomfort or pain, consider using an analgesic or anesthesia before beginning. For example, a client with an infected testicle expresses concern about being in pain during the examination. Since the examination can cause pain, nausea, vomiting, and **syncope**, reassure the client that adequate anesthesia will be used, and that if he feels discomfort or pain, more anesthesia will be delivered.

Another way to prepare the client for the genital examination is to explain to him beforehand that he can "assist." Often, this minimizes the client's anxiety. For example, asking the client to help insert a urethral swab can lessen his fear because he can maintain control (see "Overview: Pain and Anxiety" on page 3.4).

Preparing the client also means informing him about the possible effect of medication (oral medication or anesthetic gel) used during the examination on his sexual function (erection, ejaculation, and orgasmic sensations) and reproductive ability. Understandably, the client may be anxious about the impact of the genital examination on his penile sensation, libido, sexual function, and fertility. Do not wait for the client to ask about these effects; raise these concerns in a straightforward manner. Explain to the client that he is in charge and has the right to tell you to stop the examination or any treatment that takes place during the examination at any time, as well as the right to seek care elsewhere. Always remind the client that he has the right to make an informed choice. If the client has an opportunity to go to another facility and get a second opinion, encourage him to do so.

During the Genital Examination

When you perform a genital examination, it is important to keep in mind the following steps and strategies in order to make the client feel comfortable:

Supporting the Client Verbally

Wearing examination gloves during the genital examination will protect you from possible STI infection. Gloves also establish a sense of propriety and formality that may help to reduce the client's anxiety about having his genitals touched.

Overview: Pain and Anxiety

Two issues are essential to pay attention to when providing services to men with genital disorders: pain and anxiety.

Men from various cultural backgrounds may respond differently to illness, concerns about their genitals, and pain. In many cultures, men are expected to be stoic; coping with anxiety and pain may be viewed as a sign of male strength. These cultural expectations of bearing fear and pain in silence can lead to a delay in the diagnosis and treatment of serious illnesses or injuries. Men may wait until an illness becomes very severe before seeking health care. As a service provider, you must understand the cultural traditions that shape the behaviors of your male clients and provide care accordingly.

In some religious traditions, for example, men may perceive an illness or injury to be an atonement for negative behaviors in previous lives, and they may not express their pain or accept medication to relieve their suffering. For this reason, when listening to a client, remember that a seemingly minor complaint may indicate a significant problem.

In other settings, men may be expected to be in control of themselves and their situation at all times. A lack of control is implicit in exposing one's body for examination, in asking for information, and in expressing doubt, uncertainty, or vulnerability. Being unwilling to seem, to be, or to feel out of control prevents men from seeking health care promptly and makes them reluctant to ask for information. The experience of the actual genital examination, which involves a passive yielding of control and body penetration during the digital rectal part of the examination, may also cause anxiety.

As you go through each step of the examination, briefly explain to the client what you are about to do and why. Always tell the client to inform you immediately if he feels pain or excessive pressure; let the client know that you will stop if he finds any part of the examination to be painful, and will consider further measures to assist him in dealing with the pain. Let the client know immediately when a painful procedure is over. *Never* proceed with an examination if the client asks you to stop.

As you confirm normal examination findings, comment on them. This is particularly important for adolescents and young men. Many adult men seldom, if ever, have physical and/or genital examinations, yet they may have questions about whether they are "normal." Clients find it reassuring when the service provider who is performing a close inspection says that their body is normal. For example, you might say, "I'm checking your genital area now, feeling for any lumps or swellings that shouldn't be here. Everything feels fine so far. Your penis is a normal size and shape, and I don't see anything abnormal here...."

The following statements are examples of what you might say during the genital examination to support the client:

- Explain to the client what the genital examination involves and why you will be examining him. You might say, “The examination will include checking your penis, scrotum, testes, and anus. I’ll explain each step of the examination as we go along. If you have any questions during the examination, please ask me.”
- Reassure the client that you will make the examination as comfortable and painless as possible. This is especially important if he has been sexually traumatized or is young because he may be very apprehensive, as well as very sensitive to even minor discomforts and a lack of consideration. You might say, “I don’t want the examination to be painful for you” or “I’ll do everything I can to make you as comfortable as possible during the examination.” Another option is to say, “I’ll tell you everything I’m going to do. You must tell me immediately if at any time you feel pain or feel anxious. I’ll stop and help you become more comfortable.” If the client has been sexually traumatized or is young, you might say, “I understand that this examination may be uncomfortable for you and may cause you some concern. I’m going to be as gentle as I can and will try not to hurt you. Please tell me immediately if at any time you feel any pain or discomfort, or feel anxious. I’ll stop and help you become more comfortable.” Avoid directions like “Don’t move” and “Hold still.” Offer the client a choice of positions (e.g., standing up or lying on his side), and provide him with a drape, examination cover, or gown for when he is undressed.
- Explain to the client why you will check his rectum during the genital examination. You might say, “A rectal examination may be necessary depending on what I find (or “given the history of the symptoms you’ve shared with me”). The rectal examination will involve feeling pressure and will feel somewhat like a bowel movement. I’ll use a lubricant to make the examination easier. I’ll slowly insert my finger in your anus to check for tumors, enlargement, or infection of your prostate gland. You must tell me immediately if at any time you feel pain or feel anxious. I’ll stop and help you become more comfortable.”
- Explain to the client that he may feel like he has to urinate during the genital examination. You might say, “You might feel like you have to urinate or defecate during the examination. Usually this urge passes quickly, but if the urge is strong, I’ll stop.”
- If the client is anxious during the genital examination, ask him to guide you. You might say, “Let me know when it’s all right to check your right testicle” or “May I go ahead and check your left testicle now?” By having the client guide the examination, you put him in a position of control.
- Relaxation techniques (e.g., focusing on something pleasant, rhythmic breathing) can be very useful with an anxious client. You might say, “Two ways to relax is to imagine a place or situation in which you are relaxed and happy or to breathe deeply.”
- Explain to the client that he may develop an erection during the examination. It is important to remember that erections can result not only from sexual arousal, but from anxiety and temperature changes and as a reflex response to touch. If you are learning the skills needed to perform a male genital examination, you should consider the most sensitive and culturally appropriate manner in which to respond to a client who has an erection during the examination. Most experts feel that a service provider should tell the

client that having an erection is a very normal reaction to being examined and that he should not be concerned about his erection. You might say, “It’s normal to have an erection during this examination. You don’t need to be concerned or worried about it.”

- Often, the client realizes that the genital examination was easier than he had imagined it would be. Reviewing the experience with the client can help him revise his expectations about future examinations. You might say, “You were very anxious when you first came to see me today, but you were able to calm yourself for the genital examination and you learned a great deal about your body. I hope you’ll feel more comfortable the next time you come to see me.”

Note: You may also feel some discomfort or embarrassment when performing a genital examination, especially if you are a woman. The best approach to avoiding personal discomfort or embarrassment is to be straightforward and kind to the client. A very helpful strategy is to explain, step by step, to the client exactly what you are checking for during the examination and to teach the client about his body as the examination progresses. By continually explaining the steps of the examination, you have little time to focus on your discomfort or embarrassment—and the client receives an excellent education at the same time.

Positions for the Genital Examination

Any of the following three positions may be used during the genital examination:

- The client stands, and the service provider sits facing him.
- The client sits on a stool or on the end of the examination table, and the provider stands facing him.
- The client lies on his back in the supine position on the examination table or in the lithotomy position.

Before performing the genital examination, ask the client which position he will find most comfortable. Balance the client’s preference with your view of which position will be the most effective for the genital examination. Additionally, explain the various steps of the genital examination to the client (see below) and reassure him that if he feels uncomfortable at any time, he should tell you.

The Genital Examination, Step by Step

A general physical assessment is often part of a genital examination, and an examination of both the breasts and the lower abdomen is usually performed at the beginning of the genital examination.

General Physical Assessment

The first part of the genital examination is a general physical assessment. This preliminary assessment should include an examination of the client from head to toe, to identify conditions that may be relevant to sexual and reproductive functioning, as well as to identify

possible endocrine, neurological, vascular, or other health problems. It involves checking the client's height, weight, blood pressure, and appropriate vital signs (pulse, blood pressure, respiration rate, and temperature). For this part of the genital examination, the client may be sitting or lying on the examination table or standing up. He may need or want to vary his position.

During the general physical assessment, pay particular attention to the following:

- Body habitus and proportions (obesity/thinness, muscle development, female or male body proportions), to check for deformities, developmental anomalies, and gynecomastia
- Eye **sclerae**, to check for jaundice (which may indicate liver disease)
- Skin, to check for temperature, color, moistness, rash, and lesions (a generalized rash may indicate secondary syphilis or early HIV infection; lesions around the mouth and lips may indicate STIs; purplish lesions may indicate Kaposi's sarcoma; and dry skin may indicate hypothyroidism)
- Hair pattern and amount (a beard, chest hair, other body hair, and **male-pattern baldness** all indicate the presence of androgens; cool skin and the absence of hair on the legs in an older man may indicate impaired circulation to the lower limbs; and the absence of the outer third of the eyebrows may indicate **hypothyroidism**)
- Voice pitch (a high voice may indicate primary low levels of androgens that prevent a male type of larynx and vocal cords to develop sufficiently, so even if androgen levels drop after reaching normal levels, the voice will not become much higher)
- Posture, expression, and mannerisms, to check for evidence of depression, mania, alcohol or substance abuse, and psychological inappropriateness
- **Femoral and pedal pulses**, to check for evidence of blood flow to the legs in a man with erectile dysfunction (check the femoral pulse by palpating the femoral artery, which is located at the upper third of the inner thigh; check the pedal pulse by palpating the dorsalis pedis artery, which is located on the top of the foot, in front of the ankle)

Lower Abdomen Examination

The client should stand during this part of the genital examination. The lower abdomen examination should include an examination of the lower abdomen for masses or tenderness and for direct or umbilical hernias (see page 3.8). It should also include an examination of the groin area for inguinal swelling or enlarged lymph nodes.

Lymph nodes can be soft or firm, tender or nontender, and movable or fixed. Lymph nodes associated with penile infections tend to be slightly tender and enlarged. They may return to their normal size if an STI is the cause of the penile infection, and is associated with an ulcer and the ulcer has healed. Enlarged inguinal lymph nodes may also be caused by disorders of the legs and feet (e.g., infection, injury, and malignancy) and systemic lymphadenopathy (e.g., lymphoma, HIV infection). If the client has erectile dysfunction, also check the femoral pulses; an interference in the blood flow in the pelvic area can result in erectile dysfunction.

Next, check for **direct hernias** (see Photograph 18 in Appendix H on page H.9). Ask the client to bear down as if he was lifting a heavy object. This is the **Valsalva maneuver**. As the client bears down, look for lower abdominal bulging from a direct hernia. While the client continues to bear down, place the palm of your hand against the client's lower abdomen just lateral to (to the side of) the bladder area and palpate for any bulging. If there is no bulging between the abdominal muscles, the client does not have a direct hernia. An umbilical hernia may also be checked through inspection and palpation. When the client bears down, part of the intestine protrudes through the umbilicus.

Basic Components of the Genital Examination

Remember, the client can be in any of the following three positions during the genital examination:

- Standing, with the service provider sitting facing him
- Sitting on a stool or on the end of the examination table, with the provider standing facing him
- Lying on his back in the supine position on the examination table or in the lithotomy position

The basic components of the genital examination are:

1. Checking the cremaster reflex
2. Inspecting the pubis
3. Inspecting the penis
4. Inspecting the scrotum
5. Palpating the scrotal contents
6. Palpating for an inguinal hernia
7. Inspecting the perineum and anal orifice
8. Examining the prostate gland

Checking the Cremaster Reflex

The cremaster muscles in the scrotum act to pull the testes closer to the body. An intact cremaster reflex indicates the integrity (wholeness) of the sensory and motor nerves. To elicit and check the client's cremaster reflex:

1. Lightly stroke the upper third of the inner thigh on each leg.
2. Observe whether the testicle on the same side pulls upward slightly toward the groin.

Note: Check the cremaster reflex before performing other parts of the genital examination, because exposure of the testes and inner thighs to cool air and tactile stimulation will diminish the reflex as the examination progresses.

Inspecting the Pubis

1. Look at the client's pubis. The hair may be more or less abundant. Slight differences in genes among races cause variations in hair distribution, type, and thickness. Pubic



hair typically extends onto the inner sides of the thighs, over the scrotal skin, and often in a central line up toward the umbilicus, forming a diamond-shaped pattern (which is sometimes called the *male escutcheon*). A triangular-shaped pattern without any vertical extension, which is more typical in women, may indicate a hormonal disorder when present in men.

2. Next, check the client's pubic hair and skin for lice, **folliculitis**, lesions, rash, and signs of scratching. Note the client's skin color. It may indicate a disorder. For example, jaundice turns the skin yellow, respiratory problems and heart failure turn it blue, and blood disorders turn the skin purple.

Note: Most of these problems will already have been discovered during the general physical assessment.

Inspecting the Penis

1. Look at the client's penis, noting its size, color, symmetry, and hair distribution, as well as any **penile deviation**.
2. Next, hold the shaft of the penis gently and examine it for skin lesions, excoriations, abrasions, and tumors.
3. Carefully check the veins on the penis for signs of **phlebitis**; this condition is indicated by veins that are tender and inflamed or nodular.
4. If the client reports penile curvature during erection, which indicates Peyronie's disease, or if the penis appears to bend or deviate to one side, palpate the corpora cavernosa for fibrotic plaques. To do this, either hold the penile shaft between your thumb (which is below the penis) and your first two fingers (which are on top of the penis), or support the penis with one hand while palpating with the fingers of the other hand.
5. Next, retract the foreskin (or ask the client to retract it), and observe whether it retracts easily.
6. Look for lesions, **chancres**, and eruptions on the glans, which is exposed; note any signs of infection (**opportunistic**) or lesions (Kaposi's sarcoma) that indicate HIV infection.
7. Check whether the glans is clean when the foreskin is retracted; if the glans is not clean, discuss penile hygiene with the client.
8. The next step is to check the penile shaft and glans for lesions, sores, abrasions, and tumors. Genital warts in men may be difficult to recognize. Sometimes they look like smooth, dull, or slightly shiny **macules** and differ very little in appearance from the surrounding skin. More typically, on moist skin, as on the female genitals, genital warts have a papillomatous, ragged, or bumpy appearance. If necessary, use a magnifying lens during the inspection. Around the corona, it is normal to find very small (1- to 2-mm) papules that are flesh-colored, soft, and nontender (called *pearly penile papules*). If these are present, explain to the client that they are a normal finding.
9. If you notice an ulcer while inspecting the penis (which indicates balanitis, chancroid, granuloma inguinale, herpes genitalis, penile carcinoma, or primary syphilis), palpate

the ulcer to check for tenderness and the consistency and texture of its border. Use the tips of one or two fingers when palpating the ulcer.

10. Next, check the urethral meatus (see Photograph 19 in Appendix H on page H.9). Apply gentle pressure on the top and bottom of the glans to open the meatus, then look for discharge, erythema, vesicles, pustules, plaques, and intraurethral warts. If the client's history indicates urethritis but no discharge is visible, ask him to milk the shaft of the penis to express discharge. To do this, ask the client to encircle his penis at the base, next to the scrotum, by making a ring with his index finger and thumb. Tell him to tighten the "ring" moderately as he slides it down his penis to the glans. This expresses any discharge in the urethra.

11. After explaining to the client what you are about to do, take a **urethral smear** with a urethral swab. To obtain the smear, gently insert a urethral swab only 1 to 2 cm into the client's urethra.

Note: A urethral smear should be obtained only from a client who has not urinated for at least two hours. If the client has urinated within the last two hours, obtain a specimen; some discharge may have accumulated. If the smear is negative, you may want to direct the client not to urinate for two hours, and then take another specimen at that time.

12. If the client reports symptoms of chronic urethritis or urethral blockage (dribbling, incontinence, urinary hesitancy), which indicates urethral stricture or urethral carcinoma, palpate the urethra for masses, firmness, swelling, and tenderness. Hold the penile shaft between your thumb (which is below the penis) and your first two fingers (which are on top of the penis).

Overview: Tips for Inspecting the Penis

When you inspect the penis, note the following serious situations:

- A syphilitic ulcer or carcinoma has a smooth, firm border and is nontender. The carcinoma is a visible, nodular mass.
- Tender, indurated (slightly swollen, firm) areas along the urethra indicate periurethritis resulting from urethral blockage or chronic infection of the periurethral glands.

Inspecting the Scrotum

1. Look at the client's genital (also called *genitocrural*) folds and scrotal skin. The scrotal skin is more darkly pigmented than the skin on the torso and thighs. In young men, the scrotal skin is usually wrinkled and firmly hugs the testes; in elderly men, it is usually flaccid. Visible, tiny, and numerous dilations of veins in the scrotal skin are a normal finding. **Epidermoid cysts**—pale, smooth, shiny, firm, and nontender nodules containing skin secretions—are also a normal finding on the scrotum and do not require treatment. Explain the findings to the client, in the proper context.
2. Check for bacterial or fungal infections and skin lesions, separating any skin folds with your fingers to ensure that you do not overlook anything.

3. Next, check the size and configuration of the scrotum. Look at the anterior scrotal wall. The scrotum is divided into two compartments containing a testicle, epididymis, and vas deferens. Note whether the size of the scrotum is normal and whether it is fairly symmetrical in shape. One testicle may hang lower than the other, so that one side of the scrotum is typically lower. If the client has a hernia, you may notice a swollen area because the peritoneum or a portion of the bowel protrudes into the inguinal canal or into the scrotum, causing asymmetry. Asymmetrical fullness may also indicate a varicocele, hydrocele, or testicular tumor.
4. Look at the posterior scrotal wall. Ask the client (who is wearing a drape) to assume the lateral recumbent position: to lie on his side on the examination table, facing away from you, with both knees flexed, with the upper knee flexed more than the lower knee. Alternatively, ask the client to bend forward, place his elbows on the examination table, and place his feet comfortably apart (you will sit behind him). Then check the posterior scrotal wall in the same manner as you did the anterior scrotal wall; the normal features are the same.
5. To check for a varicocele, ask the client to do the Valsalva maneuver (see page 3.8) while you inspect the scrotum. When the client is in this position, the dilated veins of the varicocele are more prominent and look like a “bag of worms.”
Note: Varicoceles are more common on the left side of the scrotum.
6. The final step of the scrotal inspection is to transilluminate the scrotum, which is helpful in checking for hernias, hydroceles, testicular tumors, and varicoceles. Darken the room, and place a high-intensity flashlight against the posterior scrotal wall, with the beam pointing forward so that the light shines through the scrotum toward your eyes. Then gently stretch the scrotal skin across the swelling or mass, and view the scrotum from the front. Relatively clear fluids in the scrotum, such as those in hydroceles, transilluminate; solid masses, such as testicular tumors, do not transilluminate.

Overview: Inspecting the Scrotum

Remember the following important points when inspecting the scrotum:

- When inspection shows an asymmetric scrotum or palpation reveals a swollen or abnormal mass in the scrotum, transilluminate the scrotum.
- The scrotal wall transmits light, causing solid tissues inside the scrotal sac to appear as opaque shadows and most fluids to appear translucent, with a red glow, during transillumination.
- Hydroceles also appear translucent during transillumination.
- Normal scrotal contents, swollen areas other than hydroceles, and abnormal masses (including inguinal hernias in the scrotal sac and testicular cancers) appear opaque during transillumination.

Palpating the Scrotal Contents

1. Gently hold the scrotal sac, and separate the testes (see Photograph 21 in Appendix H on page H.10). Since the scrotal contents are usually paired structures, you should be able to feel similar structures in each half of the scrotum.
2. Next, check each half of the scrotum for a testicle (which feels like a large **ovoid** mass), epididymis (which feels like a ridge of tissue lying vertically on the posterolateral surface of the ovoid mass), and spermatic cord (which feels like a firm, nontender column of blood vessels and tissue ascending through and leaving the scrotal sac near the groin).

Note: If the scrotal sac is empty on one or both sides, this indicates cryptorchidism or temporary migration of the testicle, which is caused by the cremaster muscles drawing the testicle up toward the inguinal canal. Palpate for the testicle along the inguinal canal.

3. Next, use both hands to examine each testicle and epididymis for normal size (2.5 to 5 cm), contour, consistency, and tenderness. Place one hand behind the scrotum to stabilize the testicle. Use your other hand to capture the testicle, and gently palpate it to check its width and length. Compare one side of the scrotum to the other.

Note: The testes are usually sensitive but not tender. Testes feel slightly rubbery, but not hard, with a smooth surface. A very firm, nodular, or tender testicle indicates cancer (see Appendix C). If testicular cancer is indicated, refer the client to a urologist or surgeon immediately. A small or abnormally soft testicle may indicate an **endocrine disorder** or testicular atrophy.

The epididymis is usually insensitive to pressure. Any mass, localized pain, or swelling of the epididymis is abnormal. In acute epididymitis, the epididymis is enlarged and tender compared to the other side. In severe **epididymo-orchitis**, the testes and epididymis may not be distinguishable from each other through palpation. They are extremely tender, and the scrotum is usually inflamed. Chronic, painless induration of the epididymis indicates tuberculosis, **schistosomiasis** (also called *bilharzia*), or nonspecific chronic epididymitis. Cystic masses near the upper pole of the testicle that are separate from the testicle and epididymis are usually spermatoceles, which contain thin, milky fluid and sperm; spermatoceles usually are not **clinically significant**.

4. The next step is to check the spermatic cord. The cord, which consists of blood vessels, tissue, and the vas deferens, is palpable between the upper border of the testicle and the external inguinal ring. When palpating the spermatic cord, you can identify the vas deferens by feeling for a firm tube approximately 3 mm in diameter in a **postero-medial** location within the spermatic cord. A swollen area in the spermatic cord may be cystic (indicating, for example, a hydrocele or hernia) or solid (indicating, for example, a lipoma or rare connective tissue tumor). Diffuse swelling and induration of the spermatic cord are present with filariasis. If the client does the Valsalva maneuver, palpating the spermatic cord may reveal a varicocele. Palpating the spermatic cord may also reveal bead-like enlargements of the vas deferens, which indicates tuberculosis, or the absence of the vas deferens, which, if bilateral, causes infertility.

Overview: Teaching the Client How to Perform a Genital Self-Examination

Regular genital self-examinations are an important way to detect problems. During the genital examination, teach the client how to perform a genital self-examination (see Appendix F). This self-examination helps the client identify physical abnormalities, such as testicular cancer, epididymal cysts, STIs, and skin disorders (see Photograph 22 in Appendix H on page H.10). The genital self-examination also helps the client become more aware of his body's functions and promotes responsible health behaviors. Self-examination of the testes is particularly important for men between 15 and 40 years old, and those with a history of undescended testicle.

Palpating for an Inguinal Hernia

1. When palpating for an inguinal hernia, use *only* your smallest finger or index finger. Gently insert the examining finger into the scrotal wall just above and lateral to the testicle.

Note: A fold of the scrotal skin covers your finger as you push it into the scrotal wall.

2. Feel for the vas deferens, and follow the vas upward and laterally to the **inguinal ring** (which feels like a **sphincter**) or inguinal canal. *Never* force your finger through the inguinal ring. Instead, gently hold your finger against the inguinal ring, and ask the client to do the Valsalva maneuver. Usually, you feel nothing against your finger. But if the client has an inguinal hernia, you feel pressure from a soft mass pushing through the inguinal canal onto the tip of your finger; this may be abdominal tissue or the bowel. When abdominal tissue penetrates the inguinal canal through the internal inguinal ring, the client has an indirect hernia. You can also palpate some direct hernias using this technique. If abdominal tissue penetrates the inguinal canal through an abnormal opening in the abdominal wall, you feel a direct hernia pressing against the more proximal portion of your examining finger, away from the tip.
3. When palpating for an inguinal hernia, also palpate the inguinal lymph nodes for swelling and tenderness. Infection and cancers of the penis and scrotal wall, as well as those of the legs, can spread to the inguinal and **subinguinal** nodes. When assessing a client with these conditions, remember to check for inguinal node enlargement and tenderness.

Overview: Palpating for an Inguinal Hernia

When you palpate for an inguinal hernia, keep in mind the following important points:

- Palpating for an inguinal hernia may routinely be performed as part of an abdominal or genital examination.
- When you palpate for an inguinal hernia, it is normal to find a soft inguinal lymph node, up to 1 cm in diameter, in the inguinal fold lateral to the femoral artery.

Inspecting the Perineum and Anal Orifice

When inspecting the perineum and anal orifice, you are performing the rectal examination part of the genital examination (see Photograph 20 in Appendix H on page H.9). This involves the following steps:

1. Ask the client (who is wearing a drape) to assume the lateral recumbent position, with both knees flexed, with the upper knee flexed more than the lower knee; or ask the client to bend forward, place his elbows on the examination table, and place his feet comfortably apart (you will sit behind him).
2. Next, look at the **perineum**, which should be smooth and unbroken, and should have a regular contour with no significant discoloration or bulges.
3. Then check the anal orifice, which should be brown or pinkish-brown and should not have any visible protruding masses. The anal orifice and **perianal tissue** are covered by smooth, unbroken skin. Some hair growth around the orifice is normal.
4. The next step is to look for hemorrhoids, scars from trauma, warts, lesions (e.g., *Condylomata acuminata*, herpes, and chancres), anal bleeding, and mucous discharge. Purulent discharge from the anus may indicate rectal gonorrhea. If the client has anal discharge or has risk factors for rectal infections or STIs (which you learned while taking his history), obtain a rectal specimen *before* placing a lubricant gel in his anus (see below).
5. After explaining to the client what you are about to do, obtain the rectal specimen. For a gonorrhea culture, ask the client to bear down gently. Then slowly and gently insert a cotton swab into his anus, and gently rotate the swab to capture the purulent discharge on the swab. Immediately place the specimen on the gonorrhea culture and label the plate.
6. Before you continue the rectal examination, check for rectal fissures (deep cracks), hemorrhoids, and anal herpes. If the client has any of these conditions, use an anesthetic gel to lessen his pain before proceeding with the rectal examination. Wait at least five minutes after applying the gel to ensure that the anesthetic has time to work. If the client has a history of pain or bleeding with defecation, carefully examine the anus for rectal fissures, which may be hidden between the skin folds.
7. If the client has a history of erectile dysfunction (particularly if he also has a history of possible neurological disease, injury, pelvic surgery, or diabetes), check for the **bulbocavernosus reflex** *before* touching the anal area. To elicit this reflex, ask the client to squeeze the head of his penis. Observe the resulting reflex anal contraction. A normal bulbocavernosus reflex indicates an intact **spinal reflex arc**.

Overview: Obtaining a Rectal Specimen

When you obtain a rectal specimen, keep in mind the following information:

- Lubricant gels contain **phenols** to keep them free of bacteria, and the phenols can inhibit accurate results from collected rectal specimens. To prevent false negatives even when an infection is present, use lubricants that do not contain phenols.
- Bearing down gently helps to relax and open the rectal sphincter.

Examining the Prostate Gland

When examining the prostate gland, check the prostate gland itself and other internal structures. The prostate examination consists of the following steps:

1. Inspecting the prostate gland
2. Palpating the prostate gland
3. Palpating the seminal vesicles
4. Checking the rectal walls
5. Checking the urethral meatus (if prostatitis is indicated)

Note: Before you begin the prostate examination, tell the client that he does not have to change position. Then explain the importance of the prostate examination. Tell the client that it enables you to inspect the prostate gland and to check for tumors and other possible disorders. Remind the client that he may feel the urge to defecate or urinate, that this is normal, and that he will not lose bowel or bladder control.

1. Before inspecting the prostate gland, place your nonexamining hand on the client's hip or against his buttock to stabilize him and to enable him to prepare himself psychologically for the examination. Place the ball (the soft, fleshy part of the tip) of your well-lubricated, gloved finger flat against the anus. Ask the client to do the Valsalva maneuver as you slowly insert your finger into the anus.

Note: Rarely, a client may have a spasm of the rectal sphincter, which can be very painful. If this occurs during the prostate examination, hold your finger still and wait for the spasm to subside. This usually takes at least one minute but may last several minutes, especially if the examination is not gentle or unhurried or if the client is anxious. Explain to the client what is happening.

2. Next, with your finger pressing against the anterior wall of the rectum, feel for the prostate gland. The prostate gland is a roughly heart-shaped, symmetric organ, with two halves (lobes) that may be separated by an indentation through the rectal canal. The base of the prostate gland is wider than its apex and will be farther away from the examining finger than from the apex. The prostate gland usually feels rubbery and smooth; it should not feel hard, nodular, irregular, enlarged, or tender.

Note: Most clients feel a mild-to-severe burning sensation in the penis when the examining finger pushes on the prostate gland. You can massage the prostate gland if necessary.

3. The next step is to assess the size of the client's prostate gland. To do this, you must know the length and width of your examining finger in centimeters. Typically, a prostate gland is palpable 2 to 5 cm inside the anal sphincter through the anterior rectal wall. With your examining finger, find the median sulcus, move your finger from the sulcus to the lateral borders of the right and left lobes, and assess the size of each lobe. A shallow lateral sulcus is palpable lateral to each lobe. Typically, a prostate gland is approximately 3 cm wide and 4 cm long, and its two lobes are symmetrical in size and shape.

Note: The size of the prostate gland increases with age.

4. If you have long fingers, try to palpate for the seminal vesicles, which are superior and lateral to the prostate gland, for palpability and tenderness. Typically, they are not palpable and are nontender.

5. During the prostate examination, feel the rectal walls to check for polyps, fissures, internal hemorrhoids, and tumors. The rectal walls should feel very soft. If you feel a mass, determine if it is stool. Stool can be indented, but a mass cannot be.
6. If, given the client's history and the examination findings, you think that the client may have prostatitis, check the urethral meatus during the prostate examination for any discharge that might indicate this condition. The discharge is usually clear and does not have a smell.
7. When you have finished the genital examination, explain to the client that you are about to withdraw your finger. Remove it smoothly and slowly to prevent any client discomfort.
8. After the rectal examination, take a sample of stool from your glove to test for occult blood. This is particularly important in men who are over 40 years old. Explain to the client that he should have an annual rectal examination for occult blood and prostate disorders.

Overview: Inspecting the Prostate Gland

When you inspect the prostate gland, keep in mind the following points:

- Poor sphincter tone (a very relaxed sphincter) indicates that the client has a history of either anal penetration (which is common among male homosexuals) or possible neurological deficit. In neurological disorders with widespread nerve involvement, both sensory and motor nerves may be affected. The effect on sensory nerves may lead to decreased sensation in the client's perianal area.
- The normal consistency of the prostate gland is like that of the contracted **thenar eminence**. A prostate gland also may have a somewhat soft, boggy consistency if ejaculation is infrequent or if chronic infection impairs the drainage of prostatic fluid.
- An enlarged prostate gland may have a firmer, boggy consistency with obliteration of the median sulcus.
- Prostate tenderness indicates acute or chronic prostatitis.
- Chronic infection can also lead to induration or nodularity of the prostate gland, especially with tuberculosis.
- Carcinoma of the prostate gland or a prostatic **stone** can be suspected if one or both lobes of the prostate gland has a very hard nodule or mass. Generally, prostate gland nodules are caused by nodular BPH or cancer.

After the Genital Examination

When the genital examination is complete:

1. Give the client tissues to wipe away excess lubricant used during the examination.
2. Explain to the client that the examination is over and that he may get dressed.
3. Leave the examination room to give the client privacy to get dressed.

4. Once the client has dressed, meet with him to review the examination findings, answer any questions that he may have, discuss treatment and management plans and referrals, and provide client education. Ask the client to return to the facility if necessary. If you will need to take a urethral smear during the second visit, explain to the client that he cannot urinate for two hours beforehand, to prevent washing away any urethral secretions.
5. Write the examination findings on the client's chart as soon as possible after the examination to avoid omitting any important details. Draw diagrams as needed to record any abnormal findings, including their locations and dimensions.

Interpreting Laboratory Test Results

Part of the male genital examination involves laboratory test results that help the service provider make a differential diagnosis and determine the appropriate treatment. To effectively diagnose and treat men's reproductive health disorders, the provider should be able to interpret the results of two commonly used laboratory tests: the urine test and prostate secretions tests.

Urine Test

A urine sample is easy to obtain and can provide important information. Urine can indicate the condition of the kidneys, as well as infections of the **genitourinary tract**. A urine sample also can provide information about systemic conditions, including diabetes and hypertension. Urine is usually checked for blood, protein, glucose, **ketones**, **nitrites**, and **leukocyte esterase**. When present in urine:

- Ketones indicate an insulin deficiency, which is significant in diabetes
- Nitrites indicate a bacterial infection in the urinary tract, kidneys, or bladder
- Leukocyte esterase indicates **white blood cells (WBCs; also called *leukocytes*)** and probable bacterial infection in the genitourinary system

In addition, the sample can be studied under a microscope to quantify the number of WBCs and red blood cells (RBCs), and describe the types of cells. Some WBCs and RBCs are mature, and some are not. When stained in the laboratory, some WBCs contain granules, and some do not. RBCs have different shapes and sizes.

A midstream urine sample prevents the contamination of the sample with skin and urethral organisms. To provide a midstream sample, an uncircumcised client retracts the foreskin, cleans the glans penis with antiseptic solution, and then urinates into a wide-mouth sterile container placed over the toilet, under his penis. He continues to retract the foreskin as he urinates. A circumcised client provides a midstream urine sample by urinating a small amount into the toilet, stopping, then urinating another small amount into a wide-mouth sterile container placed over the toilet, under his penis. Because circumcised clients do not have a foreskin to retract, there is less risk for contamination with skin and urethral organisms.

An infertile client should provide a postcoital urine sample. This sample may reveal sperm if the client has retrograde ejaculation. With retrograde ejaculation, semen is forced backward into the bladder, not forward through the urethra and out the penis.

Prostate Secretions Tests

Normally, few WBCs are present in prostatic secretions; the presence of many WBCs indicates prostatitis. Acute and chronic prostatitis and epididymitis can be identified through the interpretation of the results of testing the secretions. Prostate fluid usually does not stain well for bacteria because of the makeup of their cell walls, but it can be stained to check for **acid-fast** organisms, which have slightly different cell walls. Prostate secretions collected during a genital examination must be collected in a sterile container to prevent contaminating the secretions with organisms already in the container, which would confuse test results.

Appendixes

Appendix A: The Male Reproductive System	A.1
Appendix B: Complications, Treatment, and Prevention of STIs	B.1
Appendix C: Testicular Cancer Facts	C.1
Appendix D: Sample Sexual and Reproductive Health History Form	D.1
Appendix E: Sexual and Reproductive Health History Questions	E.1
Appendix F: Teaching the Client How to Perform a Genital Self-Examination	F.1
Appendix G: Checklist for Performing a Genital Examination	G.1
Appendix H: Photographs	H.1
Appendix I: Glossary	I.1
Appendix J: Recommended References	J.1

Appendix A

The Male Reproductive System

The Male Reproductive System

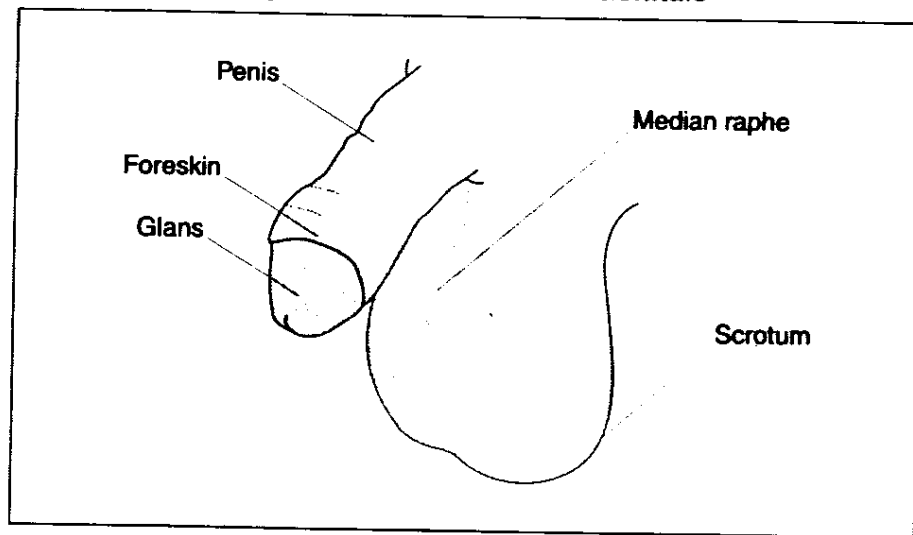
Breasts

Breasts are sexual organs and, in males, are usually moderately sensitive to stimulation. The nipples may be highly sensitive to stimulation. Men's breasts are not as pendulous as women's except in the presence of **gynecomastia** (benign glandular enlargement of the breast, which is usually bilateral).

External Male Genitals

As shown in Figure A-1, the external male genitals are the penis, the glans, the foreskin, and the scrotum.

Figure A-1. External Male Genitals



The **penis** is a tubular structure with the capacity to be flaccid or erect; it is very sensitive to stimulation. The head of the penis, the **glans**, includes the most highly innervated, or sensitive, part of the penis and is covered by the **foreskin** in men who are not circumcised. The penis provides passage for both urine and semen.

As is the case with other human characteristics, adult penis size and shape vary. The size of a penis when it is flaccid does not predict what size it will be when it is erect. Most men have an erect penis length in the range between 12 and 18 cm (5 to 7 inches), roughly the same as the length of most women's vaginas. Some variation also occurs in penis diameter. Average diameter (width) of an erect penis is 4 cm (1.6 inches).

Although concern about penis size is common, true **microphallus**, or abnormal smallness of the penis, is rare. To assess the normality of penis size, the **stretched penile length** of a flaccid penis is determined. Microphallus is defined as a stretched penile length of less than 4 cm (1.6 inches) for prepubertal boys or less than 10 cm (4 inches) for adult men.

The **scrotum** is a pouch hanging directly under the penis that contains the testes. The scrotum both protects the testes and contracts to raise or lower the testes toward and away from the body in order to maintain the optimal temperature for sperm production within the scrotum, 34°C (93°F). Sperm production is also called *spermatogenesis* (see “Overview: Spermatogenesis”). The **median raphe** is a seam or ridge indicating the junction of two lateral halves of the scrotum. It is continuous posteriorly (toward the back) with the raphe of the perineum, and continuous anteriorly (toward the front) with the raphe of the penis.

Overview: Male Circumcision

Male circumcision is the surgical removal of part or all of the foreskin, the skin that covers the glans of the penis. Although male circumcision is commonly practiced in many countries, its health benefits are uncertain; however, several studies show that circumcised boys are less likely to develop urinary tract infections than uncircumcised boys. But because these infections are relatively uncommon and easily treated, it is unclear whether male circumcision is a reasonable preventive measure. Current studies are looking at the relationship between male circumcision and the transmission of HIV and other sexually transmitted infections (STIs). In low-resource settings male circumcision is performed by service providers without proper medical training, risks associated with the procedure include tetanus infection, severe blood loss, disfigurement, and even death. When a provider performs a male circumcision, he or she should use anesthesia to minimize the client’s pain and trauma.

Overview: Spermatogenesis

Spermatogenesis—the process by which primary germ cells, called **spermatogonia** (singularly, a spermatogonium), become mature sperm, called **sperm** or **spermatozoa** (singularly, a spermatozoon)—involves the following steps:

1. The hypothalamus produces gonadotropin-releasing hormone (GnRH).
2. GnRH causes the anterior pituitary gland to secrete luteinizing hormone (LH) and follicle-stimulating hormone (FSH), which are gonadotropin hormones.
3. LH stimulates the Leydig cells to produce testosterone to help the sperm cells mature.
4. Within the seminiferous tubules in the testes, FSH acts on Sertoli cells to anchor and possibly nourish the developing sperm cells.
5. Other hormones (testosterone, inhibin, and activin) produced in the testes also enter the body’s general blood circulation. When these hormones reach the hypothalamus and pituitary gland, they act via a feedback mechanism to influence the amounts of GnRH, LH, and FSH that are produced.
6. After approximately 64 days, the spermatogonia become sperm.
7. When the sperm are fully formed, they travel through the epididymis, where they develop the capacity to fertilize female oocytes, or egg cells.

Source: Swanson & Forrest, 1984.

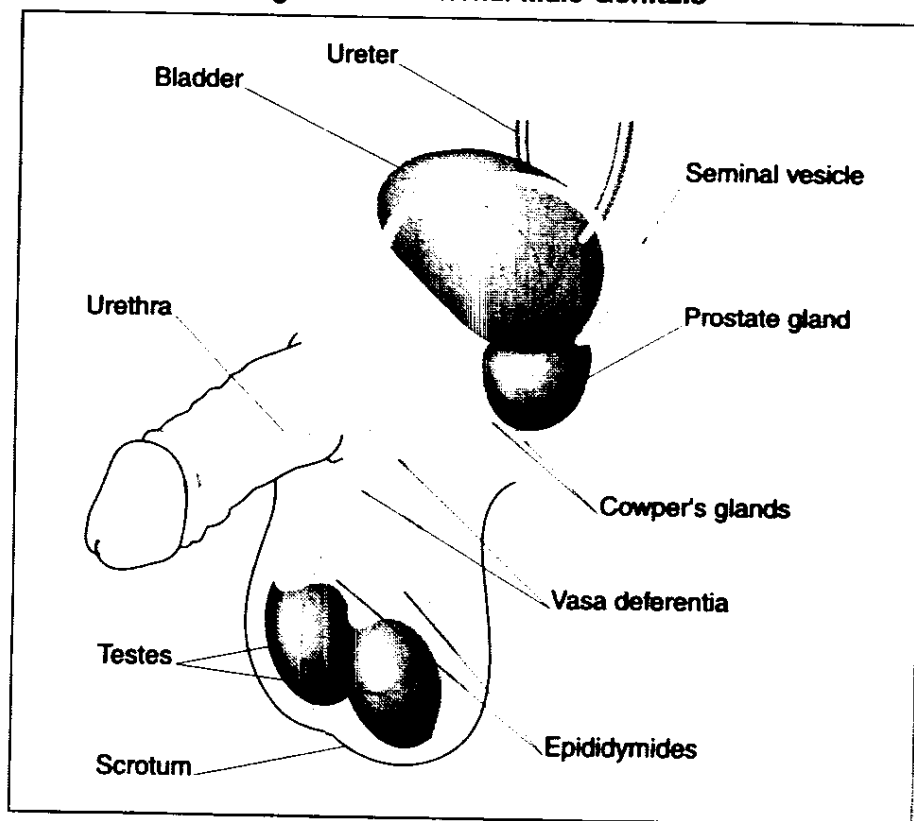
Internal Male Genitals

As shown in Figure A-2, the internal male genitals are the testes, the epididymides, the vasa deferentia, the seminal vesicles, the prostate gland, and the Cowper's glands.

The **testes**, which are located in the scrotum, are the paired organs that produce sperm and male sex hormones. They are highly innervated and sensitive to touch and pressure. The testes produce testosterone, which is the hormone responsible for the development of male sexual characteristics (a man's deepened voice and prominent facial hair) and sex drive (libido). The **epididymides** are the two highly coiled tubes against the back of the testes where sperm mature and are stored until they are released during ejaculation. The **vasa deferentia** (singularly, a **vas deferens**) are the paired tubes that carry the mature sperm from the epididymis to the urethra.

The **seminal vesicles** are the pair of glandular sacs that secrete some of the fluid that makes up semen, the white, milky fluid in which sperm are transported. Seminal fluid provides both the medium for transport of and nourishment for the sperm. The **prostate gland** is a walnut-sized glandular structure that also secretes fluid that makes up semen. A muscle at the bottom of the prostate gland keeps sperm out of the urethra until ejaculation, the process of releasing semen, begins. This same muscle also keeps urine from coming out during ejaculation. The prostate gland is very sensitive to stimulation and can be a source of sexual pleasure. The (urinary) **bladder** is a hollow organ that serves as a

Figure A-2. Internal Male Genitals



reservoir for urine. The **ureters** are two long, narrow tubes that transport urine from the kidneys to the bladder.

The **Cowper's glands** are two pea-sized glands at the base of the penis under the prostate that secrete a clear fluid into the urethra during sexual arousal and before ejaculation. This fluid, which is sometimes known as **pre-ejaculate**, or "**pre-cum**," acts as a lubricant for the sperm and coats the urethra while flowing out of the penis.

Appendix B

Complications, Treatment, and Prevention of STIs

Complications, Treatment, and Prevention of STIs

The chart below provides information to explain to the client regarding complications and treatment of various sexually transmitted infections (STIs), prevention of repeat infections, and transmission of STIs to others.

Complications, Treatment, and Prevention of STIs

STI	Complications	Treatment	Prevention
Chancroid	<ul style="list-style-type: none"> • Treatment cures the infection, and complications are rare. • If left untreated, chancroid can lead to swollen lymph nodes (glands) in the groin that can rupture and drain pus. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last three months about the infection (if possible) and encourage them to come to the health care facility for more information and treatment—even if a partner does not have any symptoms. • An infected client should avoid sex both (1) until the sores are completely healed, to make sure he does not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex. (However, transmission can still occur if the condom does not cover the sores.)
Chlamydia	<ul style="list-style-type: none"> • Many men who have this infection have no symptoms, but can pass it on to others. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last month about the infection (if possible) and encourage them to come to the health care facility for more infor-

(continued)

Complications, Treatment, and Prevention of STIs (continued)

STI	Complications	Treatment	Prevention
Chlamydia (cont'd.)	<ul style="list-style-type: none"> If left untreated in men, chlamydia can cause pain and swelling in the testes, leading to infertility. 	<ul style="list-style-type: none"> If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<p>mation and treatment—even if a partner does not have any symptoms—to avoid reinfection.</p> <ul style="list-style-type: none"> An infected client should avoid sex (1) until treatment is completed (for seven days if one-dose therapy is used) to make sure he does not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex.
Genital herpes	<ul style="list-style-type: none"> There is no cure for herpes, but there are ways to relieve pain caused by the sores. Some people experience repeated outbreaks (in other words, the sores return after they have healed). 	<ul style="list-style-type: none"> Sores can heal on their own after 10 to 14 days, but the virus stays in the body after the sores are healed. 	<ul style="list-style-type: none"> If available, certain medications can shorten the time it takes the sores to heal and can help prevent them from coming back. An infected client can get relief from the sores by (1) sitting in a bathtub or basin filled with warm water and some baking soda two times a day, (2) keeping the sores and the areas around them clean and dry, and (3) using pain relievers, such as acetaminophen or aspirin. To reduce the chances of infecting sexual partners, a client should avoid any contact with the sores until they are completely healed. The easiest way to avoid contact is not to have sex until the sores are fully healed or to use a

(continued)

Complications, Treatment, and Prevention of STIs (continued)

STI	Complications	Treatment	Prevention
Genital herpes (cont'd.)			<p>male or female condom during anal, oral, or vaginal sex. (However, transmission, can still occur if the condom does not cover the sores.)</p> <ul style="list-style-type: none"> • Some people have outbreaks during stressful times. • Sunlight can also increase outbreaks, so it is best to stay out of the sun or use protection from the sun while outdoors. • A client with herpes infection often feels a tingling or itchy feeling at the site where an outbreak is about to occur. The risk of transmission is highest just before and during an outbreak. If possible, the client should avoid sex at these times. • An infected client should inform all sexual partners about the infection and its symptoms (if possible) and encourage them to come to the health care facility for more information—even if a partner does not have any symptoms.
Genital warts (human papillomavirus, or HPV)	Not applicable	<ul style="list-style-type: none"> • If the warts do <i>not</i> go away, if the warts return, or if the client has problems with the treatment, he should return to the health care facility. 	<ul style="list-style-type: none"> • Although genital warts can be removed, HPV can stay in the body after removal. If this is the case, the warts can come back and HPV can still be transmitted to others. • An infected client should avoid sexual contact throughout the course of treatment and should inform all sexual partners about the infection (if possible) and encourage

(continued)

Complications, Treatment, and Prevention of STIs (continued)

STI	Complications	Treatment	Prevention
Genital warts (human papillomavirus, or HPV) (cont'd.)			them to come to the health care facility for more information—even if a partner does not have any symptoms. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex.
Gonorrhea	<ul style="list-style-type: none"> • If left untreated in men, gonorrhea can cause pain and swelling in the testes, leading to infertility, and can get into the bloodstream, leading to an infection throughout the body, often causing pain and swelling in the joints. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last month about the infection (if possible) and encourage them to come to the health care facility for more information and treatment—even if a partner does not have any symptoms. • An infected client should avoid sex (1) until treatment is completed (for seven days if one-dose therapy is used) to make sure he does not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex.
Nongonococcal urethritis (NGU)	<ul style="list-style-type: none"> • Although complications are rare, if left untreated in men, NGU can cause pain and swelling in the testes and damage to the genitals, leading to infertility. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last month about the infection (if possible) and encourage them to come to the health care facility for more information and treatment—even if a partner does not have any symptoms. • An infected client should avoid sex (1) until treatment is completed (for seven days if one-dose

(continued)

Complications, Treatment, and Prevention of STIs *(continued)*

STI	Complications	Treatment	Prevention
Nongonococcal urethritis (NGU) <i>(cont'd.)</i>			therapy is used) to make sure he does not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex.
Pubic lice	<ul style="list-style-type: none"> • If left untreated, there are no serious complications, other than the lack of sleep and exhaustion caused by constant scratching. • Excessive scratching may also cause skin infection. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. • Clothing and bed linens should be washed and dried at high temperatures, if possible. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last month about the infection (if possible) and encourage them to come to the health care facility for more information and treatment to avoid reinfection. • An infected client should dispose of any clothing that has come into contact with the lice.
Scabies	<ul style="list-style-type: none"> • Inflammation of the skin can last several months, even after effective treatment. • Extensive treatment can, on rare occasions, damage nerve function, especially in infants and pregnant women. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. • Scabies is difficult to treat in people with AIDS and in those who are institutionalized, are in nursing homes, or are mentally impaired. 	<ul style="list-style-type: none"> • An infected client should inform all family members and members of institutional groups to which he belongs about the infection (if possible) and encourage them to come to the health care facility for more information and treatment to avoid reinfection.

(continued)

Complications, Treatment, and Prevention of STIs *(continued)*

STI	Complications	Treatment	Prevention
Scabies (<i>cont'd.</i>)		<ul style="list-style-type: none"> • Clothing and bed linens should be laundered and cleaned or set aside for 14 days in plastic bags. 	
Syphilis	<ul style="list-style-type: none"> • If left untreated, the sores syphilis causes will heal on their own, but the client will still have the infection, which can progress and cause serious problems. • If left untreated, syphilis can damage the heart and nervous system and can cause death. 	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last three months about the infection (if possible) and encourage them to come to the health care facility for more information and treatment—even if a partner does not have any symptoms. • An infected client should avoid sex (1) until the sores are completely healed after treatment to make sure he does not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex (however, transmission can still occur if the condom does not cover the sores).
Trichomonas infection	Not applicable	<ul style="list-style-type: none"> • It is important to take the medication right away and to complete the treatment even if the symptoms go away. • If the symptoms do <i>not</i> go away, or if the client has problems with the medication, he should return to the health care facility. 	<ul style="list-style-type: none"> • An infected client should inform all sexual partners he has had in the last three months about the infection (if possible) and encourage them to come to the health care facility for more information and treatment—even if a partner does not have any symptoms. • An infected client should avoid sex (1) until treatment is completed (for seven days if one-dose therapy is used) to make sure he does

(continued)

Complications, Treatment, and Prevention of STIs *(continued)*

STI	Complications	Treatment	Prevention
Trichomonas infection (cont'd.)			not pass the infection to others, and (2) until after any partner completes treatment (or for seven days if one-dose therapy is used) so he does not get infected again. If abstinence is not possible, the client should use a male or female condom during anal, oral, or vaginal sex.

Hepatitis and HIV/AIDS

Hepatitis and HIV/AIDS deserve special mention because of their variable presentations. Service providers should strongly suspect these conditions when treating clients, especially those who engage in high-risk behavior.

Hepatitis

Hepatitis is a virus that can cause liver damage and possibly even liver failure. The condition is incurable.

Hepatitis B

Complications

- There is no medical cure for hepatitis B, but there is a vaccine to prevent it, as well as treatments that can reduce the damage caused by the virus.
- A small percentage (1% to 5%) of people infected with the virus become chronic hepatitis B carriers. Of these, approximately one third develop chronic liver disease, cirrhosis, liver failure, or liver cancer.

Prevention

Infected clients should:

- Refrain from donating blood, body organs, other tissue, or sperm and from sharing any items that might come into contact with blood (such as needles, razors, and toothbrushes).
- Use a male or female condom during anal, oral, or vaginal sex.

Hepatitis C

Complications

- There is no vaccine available to prevent hepatitis C, and there is no cure. However, some treatments can reduce the damage caused by the virus.

- Many people (50% to 80%) infected with the virus become chronic hepatitis C carriers.
- Hepatitis C can gradually lead to cirrhosis. In a number of those infected with chronic hepatitis C, the infection can lead to liver failure or liver cancer.

Prevention

Infected clients should:

- Refrain from donating blood, body organs, other tissue, or sperm and from sharing any items that might come into contact with blood (such as needles, razors, and toothbrushes).
- Use a male or female condom during anal, oral, or vaginal sex.

HIV/AIDS

Because HIV, the virus that causes AIDS, is incurable, prevention is critical. Although the condition is incurable, opportunistic infections in HIV-positive clients can be managed. Counseling such clients is directed at changing risky sexual behaviors, maintaining/improving personal hygiene, offering nutritional advice, and encouraging positive living.

Complications

- There is no vaccine available to prevent HIV infection, and there is no cure.
- Treatment does not cure the infection, but some medications can slow the spread of the virus or fight illnesses common in those infected.
- HIV weakens the immune system, making the infected person susceptible to many opportunistic infections, which are infections that the body is normally able to fight off. Many conditions may be especially severe, difficult to treat, and recurrent in individuals with HIV infection.
- HIV causes AIDS, which can lead to opportunistic infections, such as pneumonia and certain types of cancer; other life-threatening diseases; and eventually death.

Prevention

HIV-positive clients should:

- Inform all sexual partners they have had in the last three months about the infection (if possible) and encourage them to come to the clinic for more information, counseling, testing, and treatment (if available)—even if a partner does not have any symptoms.
- Refrain from donating blood, body organs, other tissue, or sperm and from sharing any items that might come into contact with blood (such as needles, razors, and toothbrushes).
- Always practice safer sex and use a male or female condom during anal, oral, or vaginal sex.

Less Common STIs

Cytomegalovirus (CMV)

This STI is a common virus (a member of the herpes family of viruses) that can cause serious infections in people with compromised immune systems.

Donovanosis

This STI can cause serious ulcers at the site of infection. These ulcers can grow together and cause permanent scarring and genital destruction.

Molluscum contagiosum

This STI causes relatively benign skin infections. It can lead to secondary bacterial infections.

Counseling

Ask all clients the following questions:

- Have you ever discussed STIs with a partner? If so, what happened?
- If not, how might you bring up the subject of STIs?
- What might you say?
- Would bringing up the subject put you at risk of violence or other serious problems?

For all clients:

If the client feels uncomfortable telling a sexual partner about an infection:

- Discuss or role play what the client might say to a partner, and suggest some strategies that might help, such as:
 - Suggest that the client choose a private place where he and the partner will not be disturbed at a time not associated with sex.
 - Encourage the client to tell the partner that they are discussing this important issue because the client really cares about the partner.
 - Suggest that the client allow time for the partner's initial reaction, then begin talking about treatment and how to prevent future infections.
- Discuss alternative strategies for getting a partner to come to the health care facility, such as providing a referral card (if available).
- Offer to talk to any partners.

Appendix C

Testicular Cancer Facts

Testicular Cancer Facts

Rates and Statistics

- Approximately 3,000 cases of testicular cancer are diagnosed each year in the United States.
- Overall incidence in the United States is 2 per 100,000 males.
- Testicular cancer accounts for about 2% of all cancers in men.
- Testicular cancer is the most common type of cancer in men between ages 29 and 35, and is the third most common cancer (after leukemia and Hodgkin's disease) in men between ages 20 and 40. It is rare in middle-aged or older men.
- Ninety-five percent of testicular tumors are malignant.
- Testicular cancer is 10 to 40 times more likely to occur when the testes descend to the scrotum after age 6 or never descend.

High-Risk Factors

The exact cause of testicular cancer is still unknown, but men in one or more of the following categories seem more susceptible than others:

- Men who have or have had an undescended testicle, especially if it occurred after age 6
- Men who have atrophy (decrease in size) of the testicle from mumps or a viral infection
- Men who have a twin, brother, or other family member who has or has had a testicular tumor
- Men who have or have had trauma to the testes (some service providers believe that this may influence the development of testicular tumors)
- Men who have or have had endocrine system abnormalities, such as elevated hormone levels (pituitary gonadotropin hormone or androgens)

Types of Testicular Tumors

Testicular tumors are classified into four main types, according to their microscopic appearance. They may occur alone or in combination, and they account for approximately 87% of all testicular tumors. The four main types of testicular tumors are as follows:

- **Seminoma.** This is a slow-growing type of tumor that accounts for 40% of occurrences of testicular cancer.
- **Teratocarcinoma.** This is a **combination type** of tumor, accounting for about 25% of cases of testicular cancer.
- **Embryonal carcinoma.** This is a rapidly growing type of tumor that tends to spread early and accounts for 15% to 20% of occurrences of testicular cancer.

- **Choriocarcinoma.** This type of tumor is responsible for only about 2% of cases of testicular cancer.

Source: Schnare, 1998.

Signs of Testicular Cancer

- In 65% of cases, a small, hard lump, which is usually painless, on the front or side of the testicle (not involving the scrotal wall or the spermatic cord)
- Sometimes, a diffusely firm and enlarged testicle
- A sudden accumulation of fluid or blood in the scrotum (**cystocele** or **hematocele**)
- A heavy feeling in the testicle
- Pain or discomfort in the genital area
- Swelling or tenderness in the breast (gynecomastia)
- Enlarged lymph nodes

Detection of Testicular Cancer

To help detect testicular cancer at an early stage, clients should:

- Perform monthly genital self-examinations. This procedure is most helpful when performed after a bath or shower, when the scrotal skin and muscles are most relaxed.
- Gently examine each testicle with the fingers of *both* hands, rolling the testicle between the thumbs and fingers to check for lumps.
- Have an annual physical examination performed by a service provider; this should include a thorough genital examination. If the provider does not perform a genital examination as part of the physical examination, the client should request one.
- Report any unusual symptoms to a service provider immediately.

In addition, parents should check their male infants to make sure that both testes have descended into the scrotum.

Appendix D
Sample Sexual and Reproductive Health
History Form

Sample Sexual and Reproductive Health History Form

Instructions

Fill in the following information as fully as possible. All of your answers are confidential. If you prefer, your provider will ask you the questions and mark the answers on the form for you.

Date: _____

Your name: _____

Facility name: _____

Facility number/code: _____

Date of birth: _____ Age: _____

Race/ethnicity: _____

Preferred language: _____

Use of translator/relationship to client: _____

Allergies to medications: Yes _____ No _____

If so, identify the medication(s): _____

1. Why have you come to the health care facility today?

Sample Sexual and Reproductive Health History Form

Family History (immediate family)

2. Do any members of your family have a history of:

• Cancer? Yes _____ No _____

If so, identify the type(s) of cancer and the family member: _____

• Congenital or genetic disorders? Yes _____ No _____

If so, identify the disorder(s) and the family member: _____

• Depression and/or other emotional illness? Yes _____ No _____

If so, identify the illness(es) and the family member: _____

• Diabetes? Yes _____ No _____

If so, identify the family member: _____

• Heart disease? Yes _____ No _____

If so, identify the family member: _____

• Heavy drinking, alcoholism, or other drug use? Yes _____ No _____

If so, identify the type(s) of drug use and the family member: _____

• High blood pressure? Yes _____ No _____

If so, identify the family member: _____

• High cholesterol? Yes _____ No _____

If so, identify the family member: _____

Sample Sexual and Reproductive Health History Form

Family History (immediate family) (continued)

2. Do any members of your family have a history of: (continued)

- Problems with impulse control (for example, anger, hitting, or violence)?

Yes _____ No _____

If so, identify the problem(s) and the family member: _____

- Do any members of your family currently have any other illnesses?

Yes _____ No _____

If so, identify the the illness(es) and the family member: _____

Personal History

3. Do you have a history of:

- Cancer?

Yes _____ No _____

If so, identify the type(s) of cancer: _____

- Depression and/or other emotional illness?

Yes _____ No _____

If so, identify the illness(es): _____

- Diabetes?

Yes _____ No _____

- Heart disease?

Yes _____ No _____

- Heavy drinking, alcoholism, or other drug use?

Yes _____ No _____

If so, identify the type(s) of drug use: _____

Sample Sexual and Reproductive Health History Form

Personal History (continued)

- High blood pressure? Yes _____ No _____
- High cholesterol? Yes _____ No _____
- Liver disease? Yes _____ No _____
- Lung disease? Yes _____ No _____
- Problems with impulse control (for example, anger, hitting, or violence)? Yes _____ No _____

If so, identify the problem(s): _____

- Smoking or other tobacco use? Yes _____ No _____
If so, do you use tobacco occasionally (up to one pack per day, on average) or frequently (more than one pack per day, on average): _____

4. Do you currently take any medications (including herbal remedies, over-the-counter medications, and vitamins)? Yes _____ No _____
If so, identify the medication(s): _____

5. Have you had any surgeries and/or been hospitalized? Yes _____ No _____
If so, identify when and where: _____

6. Have you been abused or been forced to have sex against your will? Yes _____ No _____
If so, identify when: _____

Sample Sexual and Reproductive Health History Form

STIs/HIV/AIDS Risk History

7. Are you protecting yourself from sexually transmitted infections (STIs), including HIV, the virus that causes AIDS? Yes _____ No _____

If so, identify how: _____

8. How many sexual partners have you had in the past 12 months? _____

9. Do you use condoms every time you have sex? Yes _____ No _____

10. Have you used drugs that you injected using needles? Yes _____ No _____

11. Do any of your partners use drugs that they inject using needles? Yes _____ No _____

12. Have you had blood transfusions or blood products? Yes _____ No _____

If so, identify when and where: _____

13. Do you have oral sex? Yes _____ No _____

If so, do you give oral sex or do you receive oral sex: _____

14. Do you have anal sex? Yes _____ No _____

15. Do you have sex with women, men, or both women and men? Yes _____ No _____

16. Have you ever had an STI? Yes _____ No _____ Don't know _____

If so, identify the STI and when: _____

Sample Sexual and Reproductive Health History Form

STIs/HIV/AIDS Risk History (continued)

17. Do you know if you have had any of these infections:

- | | | |
|-----------------------------------|-----------|----------|
| • Chlamydia? | Yes _____ | No _____ |
| • Chancroid? | Yes _____ | No _____ |
| • Donovanosis? | Yes _____ | No _____ |
| • Genital herpes? | Yes _____ | No _____ |
| • Genital warts or condyloma? | Yes _____ | No _____ |
| • Gonorrhea? | Yes _____ | No _____ |
| • Hepatitis or liver infection? | Yes _____ | No _____ |
| • HIV/AIDS? | Yes _____ | No _____ |
| • Nongonococcal urethritis (NGU)? | Yes _____ | No _____ |
| • Syphilis? | Yes _____ | No _____ |

18. Were you treated? Yes _____ No _____

19. Were your partners treated? Yes _____ No _____ Don't know _____

20. Have you or your partners had:

- | | | | |
|--|-----------|----------|------------------|
| • Burning with urination? | Yes _____ | No _____ | Don't know _____ |
| • Difficulty urinating or dribbling? | Yes _____ | No _____ | Don't know _____ |
| • Penile discharge? | Yes _____ | No _____ | Don't know _____ |
| • Pain during defecation? | Yes _____ | No _____ | Don't know _____ |
| • Pain during ejaculation? | Yes _____ | No _____ | Don't know _____ |
| • Pain during sex? | Yes _____ | No _____ | Don't know _____ |
| • Pelvic infection? | Yes _____ | No _____ | Don't know _____ |
| • Rash on the body or the palms
or soles of the feet? | Yes _____ | No _____ | Don't know _____ |
| • Sores on the penis? | Yes _____ | No _____ | Don't know _____ |
| • Sores on the vulva, labia, or vagina? | Yes _____ | No _____ | Don't know _____ |
| • Sore throat? | Yes _____ | No _____ | Don't know _____ |
| • Vaginal discharge? | Yes _____ | No _____ | Don't know _____ |

21. Do you practice genital self-examination? Yes _____ No _____

Sample Sexual and Reproductive Health History Form

STIs/HIV/AIDS Risk History (continued)

22. Is there anything else in your medical history that you would like to let me know?

Yes _____ No _____

If so, identify the condition: _____

Other Health Issues

23. Do you know whether you have, or have had, any diseases, infections, injuries, or problems related to your:

• Bladder?

Yes _____ No _____

If so, identify the condition: _____

• Bones or muscles?

Yes _____ No _____

If so, identify the condition: _____

• Ears, nose, or throat?

Yes _____ No _____

If so, identify the condition: _____

• Eyes?

Yes _____ No _____

If so, identify the condition: _____

• Immune system?

Yes _____ No _____

If so, identify the condition: _____

Sample Sexual and Reproductive Health History Form

Other Health Issues (continued)

- Kidneys, penis, or testes? Yes _____ No _____

If so, identify the condition: _____

- Prostate gland? Yes _____ No _____

If so, identify the condition: _____

- Skin? Yes _____ No _____

If so, identify the condition: _____

- Gallbladder, intestines (bowel), pancreas, rectum, spleen, or stomach? Yes _____ No _____

If so, identify the condition: _____

- Thyroid, growth, or development? Yes _____ No _____

If so, identify the condition: _____

Reproductive and Contraceptive History

24. Have you had any children? Yes _____ No _____

25. Are you concerned about your fertility? Yes _____ No _____

Reproductive and Contraceptive History *(continued)*

26. If you are having a sexual relationship with a woman, which contraceptive method(s) are you and your partner using to prevent pregnancy?

Sexual History

27. Are you satisfied with your current level of sexual activity? Yes _____ No _____

28. Do you have any sexual concerns? Yes _____ No _____

If so, identify the concern(s): _____

29. Do you have concerns or questions about libido or sexual arousal? Yes _____ No _____

If so, identify the concern(s) or question(s): _____

Appendix E

Sexual and Reproductive Health History Questions

Sexual and Reproductive Health History Questions

Questions Related to Major Components of Taking a Sexual and Reproductive Health History

When taking a sexual and reproductive health history, you may want to include the questions below. Become familiar with these questions so that you will be able to use them as needed.

- How did you learn about sex as a child? (for adolescents)
- How old were you when you first talked about erection, wet dreams (nocturnal ejaculation), and sexual intercourse? (for adolescents)
- Are your beliefs and attitudes about sex the same as or different from those you held during childhood or adolescence?
- How important is a sexual relationship to you?
- In your lifetime, have you had sex with women, men, or both women and men?
- Are you currently sexually involved with anyone?
- Are you satisfied with how often you have sex?
- How has your health affected the way you feel about yourself as a man?
- How has your health affected the way your partner feels about you?
- How has your health affected your ability to function as a sexual partner (or as a husband and/or as a father)?
- How has this change in your sexual functioning affected you?
- How has this change in your sexual functioning affected your partner?
- What adjustments have you made to this situation?
- Do you have difficulty discussing this situation with your partner?
- What medications are you currently taking?
- How have the medications affected your sexual functioning?
- Are you in a relationship that requires you to use contraception?
- How is your sexual functioning affected by your current contraceptive method(s)?
- What would you change about your current contraceptive method(s)?
- Most men find that sometimes they cannot have sex or they will start to have sex but then lose their erection. Does this happen to you?
- Sometimes, people express concerns about _____. What are your concerns about _____? (This question is good for eliciting specific concerns, such as erection problems, sexual techniques, lack of sexual interest, and fear of sexually transmitted infections [STIs].)

- Many people masturbate at all ages. When did you first masturbate? (A client who has *not* masturbated is always free to say that he has not masturbated.)
- Many people experience some disappointments in their sexual lives. What are some of your disappointments?
- Have you ever had any doubts, problems, or concerns about how you function sexually?
- What would you like to change about your sex life?
- Quite often, people have questions about _____. What are some of your questions about _____?

Note: Some of these questions assume that people have questions and concerns about sex, including disappointments related to sex and erection difficulties. The questions listed above are worded deliberately to let the client know that if he has such questions and concerns, he is not unique, and that it is acceptable to have such questions and concerns and to talk about them with a service provider.

Follow-Up Questions Related to Risk for Contracting STIs

The following questions are intended to help you assess if a client has an STI or is at risk for contracting an STI.

- Are you sexually active?
- Are you engaging in sexual activity regularly?
- What kind of sexual activities do you engage in? (Modify this question according to the client's answers to questions about types of partners and other related information.)
- Do you have sex with women, men, or both women and men?
- Are you having sex with more than one partner?
- How many partners have you had in the last year?
- Have you had any new partners in the last few months?
- Have you ever had any casual or one-time partners?
- When was the last time you had sex with someone other than your regular partner? Who was this person?
- Does any aspect of your life, such as recent travel, sexual orientation, or sexual activities, have any bearing on your current problem?
- Do you have oral sex?
- Do you have anal sex?
- Have you ever had any partners you would consider risky from the standpoint of HIV (the virus that causes AIDS) or other infections? What makes these partners risky?
- Is there any reason I should check you for an STI?
- Have you ever been infected by any partners?
- If you have been infected, were you and your partners treated? (If the client answers yes, ask: How were you and your partners treated? How are you and your partners now?)

- How are you protecting yourself from HIV and other STIs?
- Do you have any problems with your genitals, such as burning or pain during urination, a discharge from your penis, bumps or sores on your genitals, or pain or lumps in your genital area? (Follow up on any specific signs or symptoms that the client mentions.)

Follow-Up Questions Related to Symptoms of Infections, Injuries, and Disorders

- Do you have any pain, lumps, or heaviness in your testes?
- Do you have any problems with urination, such as having difficulty emptying the bladder, urinating frequently, having to get up during the night to urinate, or dribbling?
- Do you have any lower abdominal pain?
- Do you have dark urine or any yellowing of your skin or eyes?
- Do you have any history of genital injuries or surgery?
- Do you want to be checked for STIs today?
- Do you routinely examine your testes and other genitals? (Identify the possible need for genital self-examination instruction during the physical examination.)
- Do you have any questions about STIs or other men's sexual and reproductive health problems?

Follow-Up Questions Related to Sexual Satisfaction

The following questions are appropriate to use with a client whom you think may have a problem with sexual satisfaction. They are intended to help you assess whether the client does, in fact, have a problem, the nature of the problem, and the primary causes of and contributing factors to the problem. Choose the questions in the list below that you need to ask in order to understand the client's situation. You may want to schedule a separate visit to talk with the client about his sexual problem if there is not enough time when you first learn that he may have sexual concerns.

General Sexual and Reproductive Health

- During the past month, how often have you had sexual intercourse?
- During the past month, how often have you engaged in other sexual activities?
- Are you satisfied with these sexual activities?

Change in Sexual Frequency or Sexual Satisfaction

- Have you had any change in how often you have sex or how interested you are in sex? (Diminished libido may suggest an endocrine problem.)
- Did you have any changes in your personal life around the time that your sex life changed?
- Have you had any changes in your employment?

- Have you had any changes in your economic situation?
- Have you had any illnesses that have affected your sex life?
- Are you currently taking any medications that you weren't taking earlier?
- Do you use alcohol, drugs, or tobacco?
- Do you have any problems with your moods, such as feeling angry and not being able to control your anger, or feeling depressed (lethargic, unable to sleep)?
- Have you had any changes in your relationships?
- Are you with the same sexual partner(s)?
- How do you feel about this partner(s)? (Listen for such concerns as anger, guilt, different goals for the relationship, and disagreements about having children.)
- How often is sex unsatisfying for you or your partner?
- With which of your partners does this happen? (*Note:* This wording enables the client to reveal that he has multiple partners and lets him know that it is acceptable to have multiple partners and to talk about it with a service provider. If the client has only one partner, this wording enables him to say so.)
- When are you most likely to have this problem?
- When was the last time you had (or tried to have) sex?
- When was the last time having sex didn't happen the way you wanted it to? What happened? Who were you with? Where were you? What time of day was it? Were you drinking alcohol or using drugs?
- What did your partner do when this happened?

Erectile Dysfunction

- Are you able to achieve an erection each time you would like to have one?
- Do you ever achieve an erection but have difficulty having an orgasm?
- Do you ever have an orgasm each time you would like to have one?
- Do you have an orgasm but no liquid comes out of your penis (no ejaculation)?
- When you're interested in having sex, do you ever have any trouble achieving an erection?
- Is your erection always firm (hard) enough for you to put your penis into your partner's body?
- Do you ever lose the erection?
- What do you do when this happens?
- What does your partner do when this happens?
- Do you and/or your partner do anything to try to help you achieve or maintain an erection? Is this successful?
- Many men occasionally have difficulty achieving or maintaining an erection. Sometimes they get really worried about this problem, and it seems that the more they think

“Is my erection okay?” the more likely they are to lose the erection. Does this ever happen to you?

- Do you have ever pain when you have intercourse (or achieve an erection or ejaculate)?

Premature Ejaculation

- Do you ever have an orgasm sooner than you or your partner would like?
- What happens?
- Do you ever ejaculate before you have a chance to put your penis into your partner's body?
- How soon after putting the penis into your partner's body do you have an orgasm?
- About how many minutes does it take from the time you achieve an erection to the time you ejaculate?
- What, if anything, have you tried to do about this problem?

Follow-Up Questions Related to Contraception

- How important is it to you and your partner to prevent pregnancy at this time? (If the client answers that preventing pregnancy is *not* important to him and his partner, continue with the “Follow-Up Questions Related to Infertility and Pregnancy.” If the client answers that preventing pregnancy *is* important to him and his partner, continue with the rest of the questions in this section.)
- Which contraceptive method(s) are you and your partner using to prevent pregnancy? (If the client and his partner use a female-directed method, ask him:) Are there ways in which you help your partner use this contraceptive method?
- How satisfied are you and your partner with your current contraceptive method(s)?
- What would you or your partner change about your current contraceptive method(s)?
- Have you or your partner had any illnesses or problems that interfere with your current contraceptive method(s)?
- Do you understand how emergency contraception works?
- Can you talk with your partner about contraception and sexuality?
- Do you have any questions about preventing pregnancy?
- What effect has your illness or your surgery had on your sexual functioning?
- What adjustments have you made to this situation?
- Is your sexual functioning getting better, getting worse, or staying about the same?
- What medications are you taking? What effects from the medications have you noticed on your ability to function sexually?
- Do you have questions about the effects of your illness or surgery on your sexual activity?
- Do you have questions about how sexual activity might affect your health?

Follow-Up Questions Related to Infertility and Pregnancy

- Have you ever been responsible for impregnating a woman?
- Do you have any children? (If the client answers yes, ask:) How many children do you have? How old are they/is he or she?
- Do you want any (more) children? (If the client answers yes, ask:) When? How many? With your current partner?
- Do you have any concerns about your ability to make someone pregnant? (If the client answers yes, follow up with additional appropriate questions or refer the client to the appropriate specialist.)
- Have you had a vasectomy? (If the client answers yes, ask the questions below:)
- How has your vasectomy affected the way you feel about yourself as a man? How has your vasectomy affected the way your partner feels about you?
- How has your vasectomy affected your sexual functioning? Is your sexual functioning getting better, getting worse, or staying about the same?
- Do you have any questions about the effects of your vasectomy on your sexual activity?

Note: If a client has questions that you cannot answer or concerns that you are not prepared to address, be honest with him. Explain that you will try to find an answer or find another service provider who may be able to address his questions or concerns. If possible, refer the client to the appropriate specialist.

A general health history should be obtained with a focus on the following areas:

- **Client's age:** Fertility declines in men who are over age 65. If his female partner is over age 35, the infertility evaluation should begin promptly due to her declining fertility, without waiting one year.

Note: Sperm evaluation and the male reproductive examination should always precede the female infertility screening because a sperm assessment is simpler, less costly, less painful, and less invasive than the female infertility assessment.

- **Fertility:** Has the man or woman:
 - Ever had children?
 - Been proven fertile at some time in their lives with other partners?
- **Reproductive tract infections (RTIs):** Ask the couple about RTIs, with an emphasis on STIs. STIs, particularly gonorrhea and chlamydia, are associated with pelvic inflammatory disease (PID) in women and are a common cause of infertility due to tubal scarring. They can also increase the risk of ectopic pregnancy. STIs in men are associated with urethritis, orchitis, epididymitis, and prostatitis; these infections can impair fertility. Does the couple have risk factors for STIs (multiple sex partners, intravenous drug use, history of previous STI episodes)?
- **Contraceptive history:** Ask the couple:
 - Has the woman used an intrauterine device (IUD) in the past as a contraceptive method? The insertion of IUDs has been associated with pelvic infections that can lead to infertility.

- Has the woman used **Depo-Provera (depomedroxyprogesterone acetate [DMPA])** as a contraceptive method? DMPA may inhibit ovulation for up to 10 months after the last injection.
- Has either partner had a sterilization procedure (vasectomy or tubal ligation) or surgery to reverse a sterilization?
- **Developmental history:**
 - What is the client's developmental history, including timing of puberty? Precocious puberty may indicate **adrenogenital syndrome**, while delayed puberty may indicate Klinefelter's syndrome or idiopathic hypogonadism. Gynecomastia may suggest an endocrine abnormality. Hot flashes may result from declining testicular function.
 - Has the client ever had specific related disorders such as mumps orchitis, cryptorchidism, and testicular pain (possible testicular torsion) or injury?
 - Was he exposed antenatally to **diethylstilbestrol (DES)**, a medication that many women in Europe were given between 1940 and 1970 in the mistaken belief that it would help prevent miscarriage? "DES daughters" had high rates of cancer in the genital tract, and their "DES sons" had various genital abnormalities and, in some cases, poor semen quality.
- **General medical history:**
 - Does the client's history suggest chronic liver or kidney disease or an endocrine disorder (pituitary, thyroid, adrenal)?
 - Does the client's history suggest alcohol or drug abuse?
 - Does he have diabetes mellitus or cardiovascular disease? Chronic or repeated respiratory infections may be associated with one of several congenital abnormalities that lead to azoospermia or immotile sperm.
 - Has he had chemotherapy treatment or abdominal or pelvic radiation?
 - Has he had abdominal or pelvic surgery such as herniorrhaphy or scrotal surgery?
 - What type of work does he do? Does it expose him to reproductive hazards such as lead, testicular toxins, or pesticides?
 - **Febrile** illnesses during the preceding three to six months may result in a temporary decrease in sperm count and **fertilization capacity**. Tuberculosis, malaria, filariasis, schistosomiasis, and **Hansen's disease** may all cause infertility in some men.
- **Medication history:**
 - Is either partner taking medications or substances that can affect sexual performance or fertility?
 - Does either partner use alcohol, tobacco, marijuana, or opiates? Tobacco use impairs semen quality, as well as sexual functioning.
- **History of sexual practices:**
 - What are the frequency and timing of penile-vaginal sex?
 - Does the man ejaculate?
 - Does he ejaculate prematurely?

- Do the man and his partner achieve orgasm?
- Pain with intercourse can suggest endometriosis in the woman or Peyronie's disease in the man. Many vaginal lubricants contain phenol, or are bactericidal, or may be spermicidal, which can cause sperm immobility or death. Douching after penile-vaginal sex can wash out significant numbers of sperm and should be discouraged.

Appendix F

Teaching the Client How to Perform a Genital Self-Examination

Teaching the Client How to Perform a Genital Self-Examination

Teaching a client how to perform a genital self-examination provides him with another opportunity to ask questions about his genitals and their functions. Offer the client printed instructions for performing a genital self-examination to which he can refer as he begins to practice. Then, once you have taught him the technique for performing a genital self-examination, you can check to determine if he has been examining his genitals, verify his findings, and answer any questions he may have on subsequent visits to your facility.

If you find out that the client has not been examining his genitals regularly or at all, you can encourage him to do so by explaining the following: “Do you examine your own genitals regularly? It is important to do so. You can find testicular cancer—which is particularly common in young men—by self-exam, and also diseases that might be passed between you and your sex partner. You should get in the habit of checking your genitals routinely, about once a month.... Learning what your testicles feel like is important. If any changes occur—and nondangerous changes, as well as serious ones can occur—you should call your health professional” (Swanson & Forrest, 1984).

Performing a Genital Self-Examination

Why You Should Perform a Genital Self-Examination

- Genital self-examination helps detect testicular cancer in its early stages when it is highly curable, although in the very early stages there may not be any symptoms. Testicular cancer is one of the most common types of cancer in men who are between 20 and 35 years old. Men should start performing genital self-examinations as soon as possible around age 15 and continue on a regular basis until around age 40.
- Genital self-examination helps detect signs and symptoms of sexually transmitted infections (STIs), enabling you to seek treatment.
- Genital self-examination helps detect other disorders of the male genitals, including hydrocele, varicocele, inguinal hernia, and scrotal hernia.

When to Perform a Genital Self-Examination

- Perform a genital self-examination once a month.
- The following suggestions are examples of ways that you can remember when to perform the genital self-examination:
 - If you have a female partner, develop the habit of performing the examination during the time she menstruates.
 - Perform the examination on the same day each month, such as the day of the month on which you were born or on the day you receive your paycheck.

- The best time to perform the genital self-examination is after a warm bath or shower, because heat causes the scrotal skin to relax and soften.

How to Perform a Genital Self-Examination

- Look at your scrotum, and check for swelling.
- Feel each testicle separately by rolling the testicle between your thumb and your first two fingers of both hands. It is normal for one testicle to hang slightly lower than the other testicle. The testicle feels like a large oval mass and is slightly rubbery, but not hard, with a smooth surface.
- Feel for lumps, swelling, or a change in the size or the consistency of each testicle.
- Feel the epididymis, which is located on the outer side of each testicle. The epididymis feels like a ridge of tissue on the testicle.
- Feel for a firm, nontender column of blood vessels and tissues. This cord-like structure behind and above each testicle is the spermatic cord. Do not interpret this as an abnormality because, for example, you confuse it with a varicocele.
- See your service provider if you notice any changes in the size or consistency (e.g., firm, soft, cystic). With testicular cancer, the testicle feels very firm, nodular, or tender, and usually is not painful.
- After you examine both testes, look at your penis and scrotum. Check for any lumps, blisters, sores, rashes, or changes in the color or texture of the penis and the scrotum.
- Look at the opening at the tip of your penis to see if there is any discharge.
- Feel your genital area for bumps, sores, skin ulcers, or unevenness.
- If you have burning or pain during urination, a discharge from your penis, bumps or sores on your genitals, or pain or lumps in your genital area, see your service provider as soon as possible. These are common symptoms of STIs.

Remember to use condoms until you can be examined, so if you have an infection you will not spread it to someone else when you have sex.

Appendix G

Checklist for Performing a Genital Examination

Checklist for Performing a Genital Examination

Instructions

Place a check mark (✓) in the "Very well done" box if the participant performed the task correctly and completely; place a check mark in the "Needs improvement" box if the participant performed the task incorrectly or incompletely. Write your observations and/or your suggestions for ways the participant can more effectively perform the task in the "Comments" box.

Note: Add that it is important to tell the "service provider" to wear gloves.

Checklist for Performing a Genital Examination

Task	Very well done	Needs improvement	Comments
1. Perform a general physical assessment.			
2. Perform a breast examination, and teach the client how to perform a breast self-examination.			
3. Perform a lower abdomen examination.			
4. Check the cremaster reflex.			
5. Inspect the pubis.			
6. Inspect the penis.			
7. Inspect the scrotum, and teach the client how to perform a genital self-examination.			
8. Palpate the scrotal contents.			
9. Palpate for an inguinal hernia.			
10. Inspect the perineum and anal orifice.			
11. Examine the prostate gland.			
12. Obtain prostate, rectal, and urine specimens, if indicated.			

Appendix H

Photographs

Disorders of the Penis

Photograph 1	Balanitis	H.3
Photograph 2	Latex allergy (associated with balanitis or balanoposthitis).	H.3
Photograph 3	Paraphimosis.	H.3
Photograph 4	Priapism and paraphimosis.	H.3
Photograph 5	Smegma (associated with phimosis).	H.4
Photograph 6	Squamous cell carcinoma of the penis	H.4

Disorders of the Scrotum and Groin

Photograph 7	Hydrocele	H.4
Photograph 8	Inguinal hernia	H.5
Photograph 9	Scrotal elephantiasis.	H.5
Photograph 10	Spermatocele	H.5

Disorders of the Skin of the Genitals

Photograph 11	Genital herpes.	H.6
---------------	-------------------------	-----

Disorders of the Testes

Photograph 12	Cryptorchidism.	H.6
Photograph 13	Testicular cancer.	H.6
Photograph 14	Testicular torsion	H.7

Disorders of the Urethra

Photograph 15	Hypospadias	H.7
Photograph 16	Purulent urethral discharge (associated with gonococcal urethritis).	H.8

Common Sexually Transmitted Infections (STIs)

Photograph 17	Lymphogranuloma venereum (LGV)	H.8
---------------	--	-----

Examining the Client

Photograph 18	Checking for hernias	H.9
Photograph 19	Examination of the urethral meatus.	H.9
Photograph 20	Inspection of the perineum and anal orifice	H.9
Photograph 21	Palpation of the scrotal contents	H.10
Photograph 22	Genital self-examination	H.10

Disorders of the Penis



Photograph 1 Balanitis



Photograph 2 Latex allergy
(associated with balanitis
or balanoposthitis)



Photograph 3 Paraphimosis



Photograph 4 Priapism
and paraphimosis

continued

Disorders of the Penis (*continued*)



Photograph 5 Smegma
(associated with phimosis)



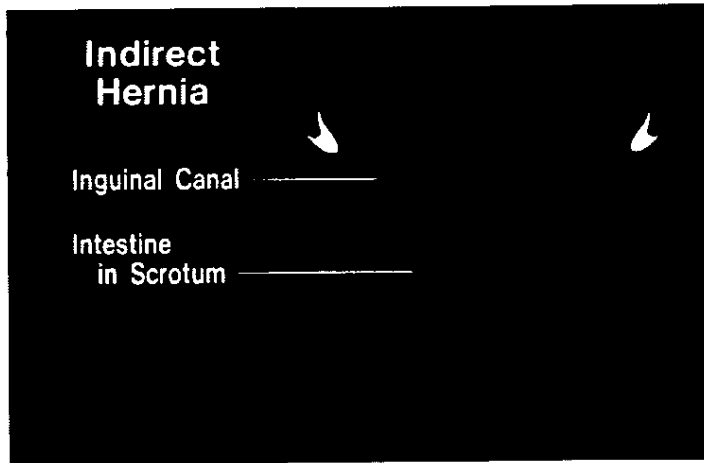
Photograph 6 Squamous cell
carcinoma of the penis

Disorders of the Scrotum and Groin



Photograph 7 Hydrocele

continued



Photograph 8 Inguinal hernia

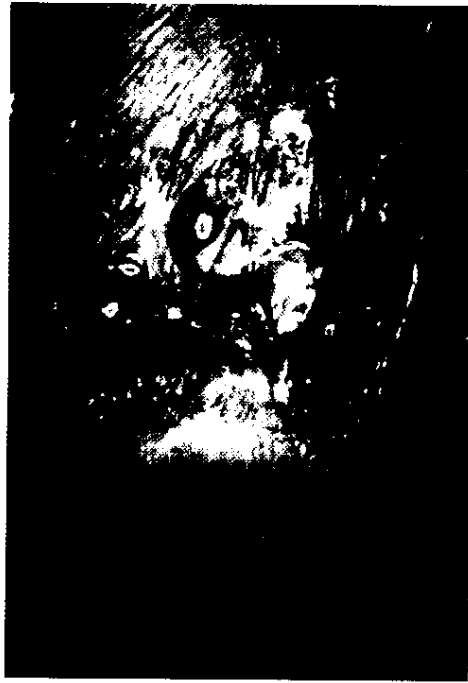


Photograph 9 Scrotal
elephantiasis



Photograph 10 Spermatocele

Disorders of the Skin of the Genitals



Photograph 11 Genital herpes

Disorders of the Testes



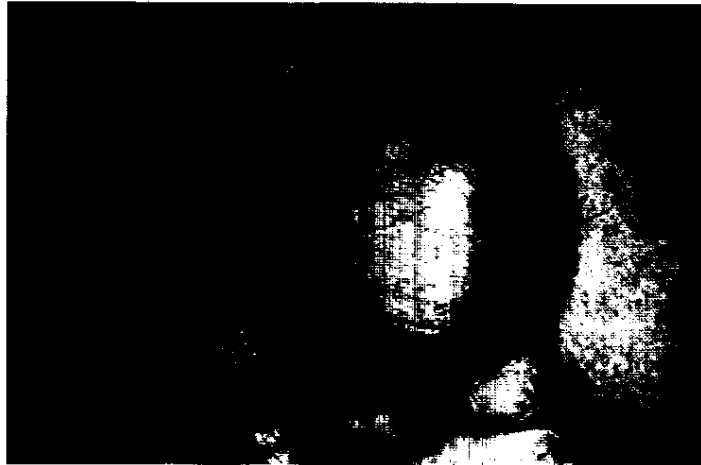
Photograph 12 Cryptorchidism



Photograph 13 Testicular cancer

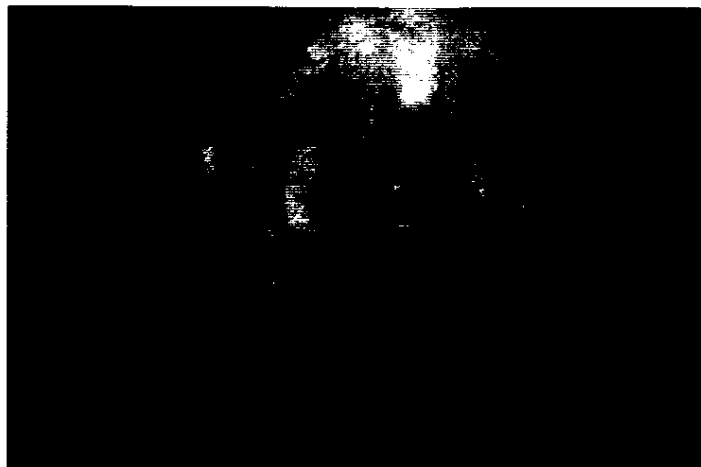
continued

Disorders of the Testes (*continued*)



Photograph 14 Testicular torsion

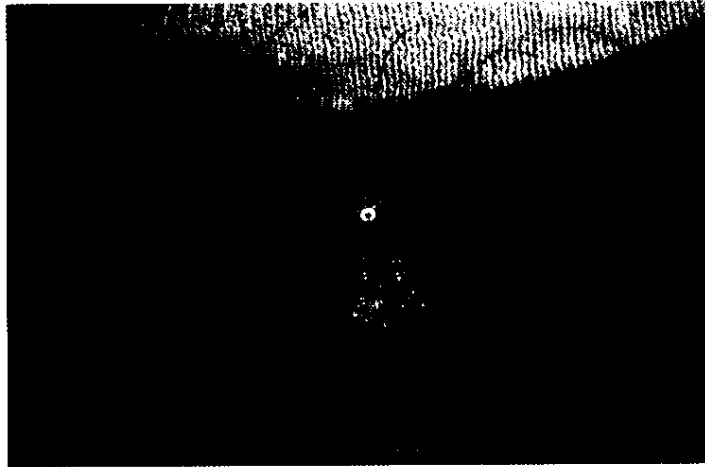
Disorders of the Urethra



Photograph 15 Hypospadias

continued

Disorders of the Urethra (*continued*)



Photograph 16 Purulent urethral discharge
(associated with gonococcal urethritis)

Common Sexually Transmitted Infections (STIs)



Photograph 17 Lymphogranuloma venereum (LGV)



Photograph 18 Checking for hernias



Photograph 19 Examination of the urethral meatus



Photograph 20 Inspection of the perineum and anal orifice

continued

Examining the Client *(continued)*



Photograph 21 Palpation of the scrotal contents



Photograph 22 Genital self-examination

Appendix I

Glossary

Glossary

Abdominal lymphatic compression

Pressure on the lymph vessels in the abdomen.

Abdominal mass

A swelling in the abdomen.

Accelerated transit time

A situation in which the length of time needed for passage is decreased.

Acid-fast

Refers to organisms, such as bacteria-causing tuberculosis and **leprosy**, whose bacterial walls do not stain well with common reagents because their cell makeup is slightly different than normal and requires special stains.

Active bleeding

A situation in which blood is escaping vigorously under pressure, so is unlikely to stop by itself.

Actively dividing cells

Cells that are dynamic and alive.

Acute nonspecific epididymitis

A type of epididymitis that is caused by an unidentified organism.

Adherent

Has the ability to stick to other tissue.

Adipose tissue

Fat.

Adrenogenital syndrome

A group of symptoms associated with alterations of secondary sexual characteristics due to an abnormal increase in the production of **androgens** by the adrenal glands.

Alcoholism

A type of drug addiction. This illness is indicated by an excess consumption of alcoholic beverages that interferes with physical or mental health and with social, family, or occupational responsibilities.

Allergen

Anything that produces an allergic reaction.

Alpha-adrenergic agonists

Drugs that decrease bladder-outlet resistance.

Amyloidosis

A disorder that is caused by an abnormal deposit of a protein called *amyloid*, in various tissues.

Anal cancer

Cancer of the anus.

Anal probing

Entering or exploring the anus with a slender rod or a flexible instrument with a bulbous tip.

Anal verge

The transitional zone between the innermost, hairless skin of the anal canal and the outer perianal skin.

Androgen

A hormone that causes the development of male sexual characteristics; usually refers to testosterone and androsterone.

Angio-neurotic edema

A disorder that causes a swelling in the scrotum that is due to a disease or injury of the vasomotor nerves.

Anorectal junction

The distal portion of the digestive tract, a transitional area from the anal to the rectal mucosa.

Anoscope

An endoscope or a speculum that is used to directly visualize the anal canal.

Anovulation

A lack of **ovulation**.

Anterior urethral injuries

Injuries located between the penile and **bulbous urethra** below the urogenital diaphragm.

Antiandrogen

A medication that counteracts the effect of the male hormone **androgen**.

Anticholinergic drugs

Drugs that weaken **bladder contractility**.

Antifungal cream

A topical medication that slows or stops the growth of a fungus.

Arteriosclerosis

A hardening and narrowing of the arteries.

Ascending infection

An infection that climbs up or inward from the lower or outer parts, respectively, of the genital tract—for example, from the urethra upward to the bladder, then the ureters, then the kidneys.

Ascites

An accumulation of fluid in the peritoneal cavity.

Aseptic meningitis

An inflammation of the meninges (membranes covering the brain), without infection or sepsis.

Attenuated

A weakened or diluted strain of vaccine (such as a virus) that is used to diminish potency in order to prevent causing a disease.

Audible peristaltic sounds

Sounds of the intestines contracting that can be heard.

Auscultation

Listening to sounds of organs that can be heard.

Auspitz's sign

A condition in which scaly papules reveal **bleeding points** when removed; associated with psoriasis.

Axilla

An armpit.

Azoospermia

A condition that is characterized by an absence of sperm in semen.

Bacteremia

The presence of bacteria in the bloodstream.

Bacterial prostatitis

An infection of the prostate gland that is caused by a bacterial infection.

Benign prostatic hyperplasia (BPH)

An enlargement of the prostate gland. Also known as *benign prostatic hypertrophy*.

Bilateral

Occurs on both sides of the body.

Bilateral anorchia

The absence of both testes at birth.

Bilateral orchitis

An inflammation of both testes.

Biopsy

A process by which a piece of tissue is removed from a client for the purposes of performing a diagnostic examination.

Bladder diverticula

Small pouches, sacs, or pockets of the inner layer of the bladder.

Bladder neoplasm

Tumor of the bladder.

Bladder-outlet obstruction

A blockage between the bladder and the urethra.

Bleeding points

Spots from which blood is escaping.

Blood tests

Tests for which blood is drawn from a vein into a vial and analyzed.

Blue dot sign

A small, bluish area seen through the scrotal skin, which indicates a blood-flow insufficiency to a structure underneath it.

Boggy

Somewhat soft.

Botox

A botulinum toxin.

Bowel movements

Passages of stools; bowel elimination.

Bowel perforation

An abnormal opening in the intestine.

Bowen's disease

A precancerous skin lesion that has pinkish **papules** covered by a thickened layer of skin.

"Buffalo hump"

A mound of fat on the back of the neck.

Bulbocavernosus reflex

A condition in which the sphincter of the anus contracts in response to squeezing the head of the penis.

Bulbous urethra

The part of the urethra that has the form or nature of a bulb; it adjoins the membranous urethra.

Calculi

Stones.

Candida

A specific microorganism normally found in the vagina in small numbers.

Carcinoma in situ

A very early stage of cancer that is confined locally to its site of origin; it has not yet penetrated deeper tissues.

CAT scans

Images of body structures that are created by a computer that takes the data from multiple X-ray images and turns them into pictures on a screen. CAT (computerized axial tomography) scans can reveal some soft-tissue and other structures that cannot be seen in conventional X-rays. Also known as *CT scan*.

CEA scans

Screening for carcinoembryonic antigen.

Celiac disease

A common disease in which the lining of the small intestine is damaged.

Chancres

Small, solid, well-defined, elevated skin lesions that occur at the point of entry of an infection; they usually indicate primary syphilis.

Chemical epididymitis

A type of epididymitis that is associated with noninfective causes.

Chemotherapy

A cancer treatment that uses drugs.

Chlamydia

A sexually transmitted infection (STI) transmitted during anal, oral, or vaginal sex.

Chronic epididymitis

A type of epididymitis that progresses slowly and is of long duration.

Chronic ulcerative colitis

An inflammation of the large intestine and rectum that is characterized by bloody diarrhea and is of long duration.

Cirrhosis

A progressive disease of the liver that is characterized by diffuse damage to liver cells, nodular regeneration, fibrosis, and disturbance of normal liver structure and function; it is often associated with alcoholism.

Clinically significant

Indicates the significance of the difference between outcomes in a clinical situation; a service provider makes this determination with respect to the client.

Coliform bacteria

A specific type of microorganism.

Colostomy

A surgical procedure that creates an opening on the abdomen for the drainage of stool from the large intestine.

Combination type

A testicular cancer having more than one histologic, or tissue, type.

Communicating hernia

An opening or passage that connects two body structures.

Compresses

Pads of gauze or other material for applying local pressure.

Congenital

Physical or mental anomalies, diseases, malformations, or traits that exist at birth.

Congenital failure

A failure that exists at birth.

Congenital urethral valves

Abnormal folds of membranous tissue of the inner layer of the urethra that exist at birth and interfere with the flow of urine through the urethral canal.

Congestive heart failure

A disorder in which the heart loses its ability to pump blood efficiently.

Crepitant

Relating to or characterized by a crackling, bubbling sound or vibration, similar to the sound produced by rubbing hair between the fingers; indicates both air entering fluid in tissues and air or gas in tissues.

Crohn's disease

A chronic autoimmune disease that can affect any part of the gastrointestinal tract but most commonly occurs in the ileum (the area where the small and large intestine meet).

Crural fold

A space between the thigh and the lower abdomen.

Cryotherapy

A process by which tissues are frozen in order to destroy them.

"Cushing's syndrome" body habitus

The body features (e.g., "buffalo hump," moon face) that result from an excess of cortisol, a hormone produced by the adrenal glands.

Cyst

A fluid-filled sac.

Cystic fibrosis

A congenital metabolic disorder in which secretions from glands are normally adhesive, causing both a sticky-mucus obstruction of passageways in, for example, the lungs, intestines, and pancreas and an increase in the salt content of sweat.

Cystitis

An inflammation of the bladder.

Cystocele

Protrusion of the urinary bladder into the vagina.

Cystoscopy

A procedure that enables the inside of the bladder and urethra to be viewed in great detail using a specialized endoscope (a tube with a small camera used to perform tests and surgeries) called a *cystoscope*.

Debilitated

Greatly weakened from disease.

Decompensation of the bladder

A condition in which the bladder is not able to adjust to an increased resistance to urine flow.

Delayed puberty

An unusually late development of secondary sexual characteristics and capability for sexual reproduction.

Dentate line

The irregular, tooth-shaped area between the rectum and the anus.

Depo-Provera

A trademark for medroxyprogesterone acetate; a progestin-only injectable contraceptive method.

Dermatome

The area of skin supplied with nerve fibers from a single spinal nerve root.

Detorsion

Reverse the torsion of or twist manually.

Diagnostics

The science and practice of making a diagnosis and finding the type and cause of a disease.

Diethylstilbestrol (DES)

A synthetic estrogen used as a substitute for the natural estrogenic hormones.

Digital rectal examination (DRE)

Palpation of the rectum and adjoining structures using the examiner's finger.

Dilation

A condition in which an orifice or tubular structure is stretched beyond normal dimensions. Another term for *dilatation*.

Direct hernias

Hernias that directly separate the abdominal muscles.

Direct inhibition

Straightforward, uninterrupted restraint or reduction.

Distal

Farthest from the point of reference, attachment, or origin.

Diverticulitis

An inflammation of an abnormal pouch in the intestinal wall, which is usually found in the large intestine.

Dorsal

Upper.

Draining sinus tract

A channel or passageway through which pus is discharged.

Dyspnea

Breathing difficulty.

Dysuria

Pain during urination.

E. coli urinary tract infection

An inflammation of the urinary bladder or urethra that is caused by E. coli bacteria.

Ectopic testicle

A condition in which a testicle descends to the wrong area.

Edema

A condition that is characterized by excess swelling in connective tissue.

Edematous

Has edema.

Ejaculation

Contractions of the ejaculatory duct in the prostate gland that cause semen to be ejected through the urethra and penis.

Electrocautery

A high-frequency electrical current.

Electro-ejaculation

Stimulation of ejaculation using an electric current.

Emesis

Vomiting; upset stomach.

Encephalitis

An inflammation of the brain.

Endocrine disorder

A disorder that is associated with hormone levels.

Endometriosis

A disorder that is characterized by pain during menstruation and can cause infertility.

Endoscopy

A process by which tissues are viewed using an endoscope, which consists of a camera mounted on a flexible tube. Small instruments can be used to take samples of suspicious tissues through the endoscope.

Engorged

Filled with fluid, such as blood.

Enterococci

A specific type of microorganism.

Epidermoid cysts

Cysts found just under the skin containing skin secretions that look like cheese. Another term for *sebaceous cysts*.

Epididymitis

An inflammation of the epididymis.

Epididymo-orchitis

An inflammation and swelling of the epididymis and testicle, usually caused by an infection.

Erectile dysfunction

Another term for **impotence**.

Eroded

Denuded of skin.

Erythema

Redness.

Erythematous papules

Red, solid, well-defined elevations of the skin.

Esophageal varices

Varicose veins in the esophagus.

Etiologic management

An approach in which diagnosis is based on the results of laboratory tests.

Etiologic organisms

Microorganisms that cause a disease.

Eunuch-like

Like a boy or man whose sexual characteristics have not been influenced by male hormones and who lacks testes or external genitals.

Excised

Removed by cutting out.

Excoriations

Scratch marks.

Excrecences

Outgrowths from a body surface.

Exertional weakness

A lack of energy caused by iron-deficiency anemia.

Exteriorization

To transpose an internal organ to the external surface of the body. *In psychiatry, to turn one's interest outward.*

Facial adiposity

Excessive fat deposited in the face. Another term for **moon face**.

Familial polyposis

A disease in which some families have a higher chance than others of developing polyps.

Febrile

Can cause or is associated with fever.

Female factor

A substance promoting or functioning in a particular process for females.

Femoral pulses

Pulses of the femoral artery located in the upper third of the inner thigh.

Fertile

Able to reproduce.

Fertilization capacity

An ability to fertilize.

Filariasis

An infection by the filaria parasite, a worm whose larvae invade lymphoid tissue, causing obstruction, inflammation, swelling, and pain.

Fissure

A tear.

Flexible endoscopy

Visual inspection of interior structures of the body using a nonrigid fiberoptic instrument.

Focally indurate

Small, discrete areas of hardening.

Follicle-stimulating hormone (FSH)

A hormone that affects the germinal epithelium and the Sertoli cells in the seminiferous tubules in the testicle.

Folliculitis

An infection of the hair follicles.

Foreskin

The prepuce or skin that covers the head of the penis.

Frank peritonitis

Obvious signs of an inflammation of the peritoneum.

Fulguration

A destruction of tissue that is caused by **electrocautery**.

Furuncle

An infection of a hair follicle. Another term for *boil*.

Galactorrhea

A persistent discharge of milk or a white fluid from the breast.

Gangrene

A particular type of **necrosis** that is caused by an obstruction or a decrease in the blood supply.

Gastritis

An inflammation of the stomach lining.

Gastrointestinal problems

Illnesses related to the stomach, intestines, and adjacent anatomical structures.

Genital ducts

Genital structures, such as the epididymis and vas deferens.

Genitourinary tract

The genitals and urinary structures.

Germ cell tumors

A type of cancer that arises from the transformation of primordial cells (cells showing the earliest structure of an embryo).

Glans

The head of the penis.

Glans penis

The foreskin of the penis.

Gluteal cleft

The space or parting between the buttocks.

Glycosuria

The presence of abnormal amounts of sugar in urine.

GnRH release

The release of gonadotropin-releasing hormone (GnRH).

Gonadal dysgenesis

A birth defect that is caused by the absence of an X chromosome in some or all cells of a female, which inhibits sexual development and usually causes infertility. Another term for *Turner syndrome*.

Gonococci

A specific type of microorganism.

Gonorrhea

A sexually transmitted infection (STI) transmitted during anal, oral, or vaginal sex.

Gram-negative bacteria

Bacteria that react to a **Gram stain**.

Gram-negative enteric bacteria

Intestinal bacteria that react to a **Gram stain**.

Gram stain

A diagnostic reagent that is used for a simple laboratory test that identifies bacteria; this is usually the first test performed in microbiology because it is simple, inexpensive, and relatively reliable.

Granulomatous orchitis

A granulated inflammation of the testicle.

Gynecomastia

A benign glandular enlargement of the breast.

Hansen's disease

An infectious disease that is characterized by disfiguring skin lesions, peripheral nerve damage, and progressive debilitation. Another term for **leprosy**.

Hemachromatosis

An iron-metabolism disorder that is characterized by both an excessive absorption of ingested iron and a deposit of iron compounds in tissues, such as the skin, liver, pancreas, and heart.

Hematemesis

Vomiting of gross blood or bloody material, which indicates bleeding from the upper gastrointestinal (GI) tract.

Hematochezia

A condition in which bright red blood is passed in the stool. Another term for **melena**.

Hematogenous spread

A method by which an infection travels through the bloodstream.

Hematoma

A mass of usually clotted blood that forms in a tissue, organ, or body cavity and is caused by a broken blood vessel.

Hemospermia

A condition in which semen contains blood or red blood cells (RBCs).

Hematuria

A condition in which urine contains blood or red blood cells (RBCs).

Hemiscrotum

Half or one side of the scrotum.

Hemodynamically significant

Causing a change in the stability of the heart and vascular systems.

Hemorrhagic

Bleeding.

Hepatitis B

A viral infection transmitted through contact with infected blood or other body fluids.

Hepatitis B can be transmitted during anal, oral, or vaginal sex.

Hepatitis C

A viral infection transmitted through contact with infected blood or other body fluids. The most common route of transmission of hepatitis C is injection drug use.

Herniorrhaphy

A hernia repair.

Herpes simplex

A **sexually transmitted infection (STI)** that is transmitted through direct contact with the painful **ulcers** (sores) it causes, but can also be transmitted after the sores have healed or before an outbreak has occurred. It can be transmitted from the mouth to the genitals or from the genitals to the mouth during oral sex.

Higher-level assessment

An assessment that is done at a specialized referral site and involves more elaborate and refined tests than those done at a health care facility.

Hirsutism

Excessive growth of dark, coarse body hair in women and children.

Histologic

Of or pertaining to tissue.

Hormone therapy

Treatment with chemical transmitter substances produced by body cells and transported in the bloodstream to other cells to achieve a specific regulatory effect, or treatment with synthetic substances that have similar effects.

Human papillomavirus (HPV)

A group of more than 70 types of viruses that can cause warts or papillomas. Although some types of HPV cause common warts on the hands and feet, genital HPVs are sexually transmitted and can cause warts in the genital and anal areas of both men and women.

Hyperglycemia

An excess amount of sugar in the blood.

Hypergonadotropic hypogonadism

An excess of gonadotropin secretion by the pituitary gland.

Hypermobility

Moves beyond the normal range with little effort.

Hyperpigmentation

An excess of pigmentation or dark color in a tissue, such as skin.

Hyperprolactinemia

An excess of prolactin in the blood.

Hypogonadism

A deficiency in testosterone secretion by the testes.

Hypogonadotropic hypogonadism

A deficiency in gonadotropin secretion by the pituitary gland. Another term for **Kallman's syndrome**.

Hypothalamic-pituitary axis

A dynamic functional link between the hypothalamus and the pituitary that controls hormone levels and function.

Hypothyroidism

A deficiency in thyroid gland activity; the underproduction of thyroxine or the condition resulting from its underproduction.

Idiopathic infertility

Cases of infertility whose causes are unknown.

Idiopathic lymphedema

A condition in which an obstruction of **lymphatics** causes a swelling of tissue and an accumulation of large amounts of lymph in the affected area; its causes are unknown.

Immotile cilia syndrome

A syndrome that is caused when hair-like cilia do not function properly and do not effectively help move secretions and eliminate trapped microorganisms.

Immunotherapy

Passive immunization of an individual by administration of preformed antibodies; also, use of treatments to potentiate an immune reaction or infusion of specially treated white blood cells or bone marrow.

Impaired spermatogenesis

Disordered sperm production (division and differentiation).

Impotence

An inability to achieve an erection.

Incarcerated hernia

A hernia that is trapped in the **inguinal ring**.

Incontinence

An inability to prevent the discharge of body secretions, especially urine and feces.

Incubation period

The time from infection to the first appearance of signs and symptoms.

Induration

Hardening of a tissue or part, usually from inflammation or infiltration with cancer.

Infarction

A sudden insufficiency in blood supply that produces an area of tissue death.

Inferior vena cava

A blood vessel.

Infertile

Unable to reproduce.

Infiltrate

To penetrate the interstices of a tissue or substance; also, material deposited by infiltration.

Inguinal area

The groin.

Inguinal canal

A passage in the lower abdominal wall. In

men, this canal allows passage of the spermatic cord to the scrotum. The canal is an area of weakness in the anterior abdominal wall and is, as a result, a frequent site of fistula.

Inguinal defect

An absence, dysfunction, imperfection, malformation, or weakness of the lower part of the abdominal wall at the groin.

Inguinal lymphadenopathy

Any disorder that affects one or more lymph nodes in the inguinal region or groin.

Inguinal region

Groin.

Inguinal ring

The entrance of the **inguinal canal**.

Inhibited sexual desire (ISD)

A persistent loss of desire that disrupts an individual's sexual relationship(s).

Interdigital web spaces

Spaces between the fingers.

Interstitial cystitis

A bladder condition that is caused by chronic inflammation.

Intra-abdominal tumor

A tumor inside the abdomen.

Intrapelvic

Inside the pelvis.

Intrauterine device (IUD)

A long-acting contraceptive method that is usually made of plastic or of plastic and copper.

Intrauterine insemination

To deposit seminal fluid directly into the uterus.

Ischemia

A lack of circulation to a tissue.

Jaundice

A yellowing of the skin, the whites of the eyes, and the mucous membranes that is usually caused by a liver disorder.

Kallman's syndrome

A deficiency in gonadotropin secretion by the pituitary gland. Another term for **hypogonadotropic hypogonadism**.

Ketones

Chemical compounds. When excess amounts of ketones are found in urine, caused by lipid/fat breakdown, they signify an impaired metabolism. This is significant in clients with diabetes because it indicates an insulin deficiency and a decreased availability of glucose to body tissues.

Klinefelter's syndrome

A chromosome abnormality that affects only men and causes **hypogonadism**.

Leiomyomata

Uterine fibroids.

Leprosy

An infectious disease that is characterized by disfiguring skin lesions, peripheral nerve damage, and progressive debilitation. Another term for **Hansen's disease**.

Lethargy

A loss of energy.

Leukocyte esterase

An enzyme that indicates the activity of **white blood cells** (WBCs).

Leukocytes

Another term for **white blood cells** (WBCs).

Levator ani

A muscle that forms part of the pelvic floor.

Lichen planus

A type of skin disease.

Lipoma

A fat-tissue growth.

Lithotomy position

A position a client assumes during a genital examination in which he lies on his back with his knees up and apart.

Live

Not killed (such as a virus).

Luteinizing hormone (LH)

A hormone that affects the Leydig cells, causing them to provide the primary intratesticular source of testosterone.

Lymphatics

Small vessels that carry lymph fluid throughout the body.

Lymph nodes

Circular masses of lymph tissue that are surrounded by a capsule of connective tissue.

Macules

Discolored spots on the skin that are not elevated above the surrounding surface.

Male factor

A substance promoting or functioning in a particular process for males.

Male orgasmic disorder

A problem related to orgasm in men.

Male-pattern baldness

A pattern of hair loss in men that is caused by their genetic makeup and hormones; this type of baldness usually starts with a receding hairline.

Malignant cells

Cancer cells.

Manual detorsion

Reduction.

Manual reduction

A procedure in which an examiner uses his or her hands to replace tissue back to its normal position.

Melena

Blood in the stool. Another term for **hematochezia**.

Meletemesis

"Coffee-grounds" vomiting.

Menometrorrhagia

Excessive uterine bleeding during and between menstrual periods.

Metastasize

To grow or spread.

Metastatic disease

Cancer that has spread beyond its original location.

Metastatic potential

The likelihood that cancer cells will travel, settle, and **metastasize** to other parts of the body.

Moon face

Excessive fat deposited in the face. Another term for **facial adiposity**.

Morbidity

Ill health; diseased state.

Morphology

The shape of an organism or any of its parts.

Motility

The ability to move or to change place or form.

Mumps parotitis

An acute, contagious, viral disease that causes a painful enlargement of the salivary or parotid glands.

Myocardial infarction

A heart attack.

Necrosis

The death of a cell, tissue, or organ, resulting from irreversible damage.

Needle biopsy

A **biopsy** in which the specimen is taken using a needle to minimize trauma.

Nephrotic syndrome

An abnormal condition that is characterized by a deficiency of albumin in the blood and its excretion in the urine.

Neurogenic bladder

A bladder whose nerve impulses are not normal.

Neurological symptoms

Complaints related to the nervous system.

Nitrites

Compounds formed from nitrous acid. When present in urine, they indicate a bacterial infection; the bacteria convert the nitrate compounds in the diet to nitrites.

Nocturia

Increased urination at night.

Nodular

Marked with or resembling small, circular swellings or nodes that can be detected by touch.

Nodular sperm granuloma

A process by which sperm seep through the blocked end of the vas deferens and form a tiny swelling or nodule.

Nonacute intrascrotal swelling

A swelling located inside the scrotum that progresses gradually.

Nonbacterial prostatitis

An inflammation of the prostate gland that is not caused by a bacterial infection.

Obliterate

To blot out, especially by filling a natural space or lumen through fibrosis or inflammation.

Obstructive uropathy

A blockage of the flow of urine, causing it to back up and injure one or both kidneys.

Obvious blood

Easily visible, and usually a copious amount of, blood.

Occult blood

Tiny amounts of blood that are hidden or invisible to the naked eye.

Occult blood testing

Testing for tiny amounts of blood that are hidden or invisible to the naked eye.

Oligospermia

A condition that is characterized by fewer sperm than normal in semen.

Opportunistic

Caused by microorganisms that usually do not cause disease but take the "opportunity" to do so under certain conditions, such as when the body's immune system is suppressed by chemotherapy, HIV infection, or steroids.

Orchidometer

A simple device that is used to assess testicular size.

Orchidopexy

A treatment of an undescended testicle by freeing it surgically and implanting or fixing it in the scrotum.

Orchiectomy

The excision of one or both testes.

Ovoid

Egg-shaped.

Ovulation

A discharge of a mature egg from an ovary.

Palpable vibrations

Vibrations that can be detected through touch.

Papules

Small, solid, and raised skin lesions.

Partner management

Partner notification, counseling, and treatment.

Pathologic fractures

Breaks in the continuity of bone due to a weakening of the bone structure by a pathologic process, such as cancer or infection.

Pathologic phimosis

A disorder that occurs when the foreskin cannot be retracted after puberty or when the foreskin could previously be retracted. A type of phimosis that is caused by disease or may itself cause disease or dysfunction.

Pedal pulses

Pulses of the dorsalis pedal artery located in the top of the foot, in front of the ankle.

Pelvic inflammatory disease (PID)

An infection of the internal reproductive organs in women, involving inflammation, irritation, and swelling of the uterus, fallopian tubes, ovaries, and surrounding pelvic tissues.

Penectomy

The excision of a penis.

Penile deviation

The movement of the penis to the right or left

of the midline; this is more apparent when a penis is erect.

Penile skin edema

An accumulation of excessive amounts of fluid in the skin of the penis.

Peptic ulcer

An open sore or raw area in the lining of the stomach or the upper part of the small intestine.

Percussion

A method of "tapping" body parts during a physical examination with fingers, hands, or small instruments, to check the size, consistency, borders, and presence or absence of fluid in body organs.

Performance anxiety

A man's anxiety about his ability to "perform" sexually.

Perianal tissue

The tissue around the anus.

Perineum

The pelvic floor, associated muscles, and other structures occupying the pelvic outlet.

Peripheral androgen action

Effect of male hormones on tissues outside the genitalia.

Peristalsis

A progressive wave of contraction of a tubular structure, such as the gastrointestinal tract, consisting in a narrowing and shortening of part of the tube, which then relaxes while a distal portion of the tube narrows and shortens, forcing the contents of the tube further along.

Peritoneal irritation

A condition in which the inner lining of the abdominal cavity is abnormally excitable or reacts excessively to slight stimulation.

Peritonitis

An inflammation of the peritoneum.

Periurethral abscesses

Tiny, pus-filled sacs that are located around the urethra.

Phenols

Poisonous organic products derived from distillation of coal tar or synthetically, used as antimicrobials; also called carbolic acid.

Phimotic foreskin

The foreskin that forms a "noose" at the junction of the glans and shaft of the penis.

Phimotic ring

The tightest part of the "noose" that a **phimotic foreskin** forms at the junction of the glans and shaft of the penis.

Phlebitis

An inflammation of a vein.

Physiologic phimosis

A disorder that occurs when the foreskin cannot be retracted after puberty or when the foreskin could previously be retracted. A "normal" type of phimosis that is not caused by disease.

Pitting

A condition in which the skin and underlying fluid-laden tissues indent or dimple when pressure is applied.

Pituitary gonadotropin secretion

Secretion by the pituitary hormones that has a stimulating effect on the gonads.

Plaque

A patch or small, differentiated area on a body surface, either external or internal.

Podophyllin

A solution in a compound benzocaine tincture.

Point of inevitability

The time beyond which ejaculation cannot be stopped.

Polyps

A growth that projects (usually on a stalk) from the lining of an organ.

Postcoital test

A test for infertility carried out on the female partner after intercourse.

Postero-medial

Behind and toward the midline of the body.

Posterior midline position

The back, center part of a structure.

Posterior urethral injuries

Injuries located between the bladder and the prostate gland.

Posturination dribble

A condition in which urine continues to fall in drops after a man has finished urinating.

Precocious puberty

Unusually early development of secondary sexual characteristics and capability for sexual reproduction.

Premature ejaculation

Male orgasm prior to or immediately after penetration.

Primary testicular failure

A defect in the testes, not in a secondary control mechanism, such as the pituitary gland or hypothalamus.

Proctoscopy

An internal examination of the rectum, distal sigmoid colon, and large bowel using a type of small camera (flexible sigmoidoscope).

Progressive pain

Pain that worsens over the course of a condition; when related to menstruation, pain that worsens over the course of the menstrual cycle.

Prolapse

The abnormal movement of a body part from its usual position.

Prostatectomy

The excision of obstructive prostatic tissue.

Prostate-specific antigen (PSA)

An antigen used as an indicator of prostatic disease, especially prostate cancer.

Prostatic abscess

A pus-filled sac in the prostate gland.

Prostatic cysts

Cysts within the prostate gland.

Prostatic tuberculosis

Tuberculosis of the prostate gland.

Prostatitis

An inflammation of the prostate gland.

Protein-calorie malnutrition

A disease in which there is inadequate nutrition from proteins and carbohydrates.

Proximal

Closest to the point of reference, attachment, or origin.

Proximal vasal end

The end of the vas that is closer to the body.

Pruritis

A condition that is characterized by itchiness.

Purulent urethral discharge

Passage of pus from the urethra.

Pustules

Small, pus-filled sacs on the skin.

Pyelonephritis

An inflammation of the pelvis part of the kidney.

Radiation therapy

A cancer treatment that uses radiation.

Reagent

A chemical used for laboratory tests.

Recto-sigmoid diverticulitis

Diverticula in the rectum and sigmoid colon.

Rectosigmoidoscopy

Examination of the internal surfaces of the rectum and sigmoid colon using a fiberoptic instrument.

Reduction of the bowel

Putting the bowel back to its normal position.

Referred pain

Pain in a part other than that in which the cause of the pain is situated.

Reflux

Regurgitation or flowing back of fluid.

Refractory period

A period during which muscles relax and the body begins to return to its pre-excitement state.

Renal failure

An inability of the kidneys to maintain normal function.

Renal tubules

Structures that are located in the kidneys, high in the urinary tract.

Renal vein

A blood vessel that is located in the kidneys.

Reproductive tract infections (RTIs)

A broad group of infections that includes sexually transmitted infections (STIs).

Residual urine

Urine that is left behind in the bladder after urination.

Respiratory problems

Difficulty breathing.

Retarded ejaculation

Ejaculation that is unduly delayed.

Retractile

Capable of being drawn back. Another term for *retractable*.

Retrograde ejaculation

A type of **ejaculation** that is directed backward into the urinary bladder rather than outward through the penis.

Rigid endoscopy

Examination of the inside structure of the body passages or organs using an inflexible fiberoptic instrument.

Sarcoidosis

A disease whose cause is unknown in which inflammation occurs in the lymph nodes, lungs, liver, eyes, skin, and/or other tissues.

Satellite pustules

Small **pustules** surrounding the main lesion.

Schistosomiasis

A disease caused by parasites of the genus *Schistosoma*. Also called *bilharzia*.

Sclerae

The firm, fibrous outer layer of the eyeball.

Scleroderma

A thickening of the skin caused by hardening and swelling of fibrous tissue.

Self-instrumentation

A process by which a client tries to insert a catheter or some other instrument into his urethra.

Semen analysis

A method of measuring, describing, or evaluating semen.

Semen parameters

Ways to measure, describe, or evaluate semen quality; these parameters include concentration, volume, and **motility**.

Sepsis

The presence of disease that causes microorganisms or their toxins in blood or other body tissues; the condition associated with such a presence.

Serum gonadotropins

Presence of the hormones that stimulate gonads in the serum.

Sexual activity

Sexual behaviors and practices.

Sexual desire

A strong wanting for sexual stimulation (either by oneself or with another person) or sexual intimacy that may cause one to seek sexual satisfaction.

Sexually transmitted diseases (STDs)

Infections that are primarily passed from person to person by sexual contact and are part of a broader group of infections known as **reproductive tract infections (RTIs)**. Another term for **sexually transmitted infections (STIs)**.

Sexually transmitted infections (STIs)

Infections that are primarily passed from person to person by sexual contact and are part of a broader group of infections known as **reproductive tract infections (RTIs)**. Another term for **sexually transmitted diseases (STDs)**.

Sexual response cycle

The pattern of response to sexual stimulation. This cycle consists of five main phases: desire

(also called *libido*), excitement (also called *arousal*), plateau, orgasm, and resolution.

Each time an individual has a sexual experience, some or all of the phases may be reached. However, it is not necessary to complete the cycle for sexual fulfillment.

Sigmoid colon

The section of the colon between the descending colon and the rectum.

Smallpox

A viral disease that is characterized by a skin rash and a high death rate.

Smegma

A discharge from the penis and foreskin.

Spasms

A loss of muscle control.

Special risk

A higher-than-usual chance of having the disease.

Special tests

Additional, more complicated tests that may need to be performed, depending on the presentation of an individual client, in order to make a more specific, reliable diagnosis.

Specific antimicrobial therapy

A treatment that is expected to be effective against a particular microorganism.

Spermatic cord

A firm column of tissue that encloses the vas deferens.

Spermatocele

A cystic dilation of a duct in the head of the epididymis.

Spermatocectomy

The excision of a spermatocele.

Spermatoocytes

Cells that arise from **spermatogonia** and eventually become sperm cells.

Spermatogonia

Primary germ cells.

Sperm density

Concentration of sperm.

197

Sphincter

A circular muscle that constricts a passage or closes a natural orifice—e.g., the anus or urethra.

Spinal reflex arc

The pathway or circuit that connects a sensory nerve to the spinal cord, then to a motor nerve that supplies a muscle. When the sensory nerve is stimulated, the impulse travels to the spinal cord, then through the motor nerve to the muscle, causing the muscle to contract.

Squamous cell carcinoma of the penis

A malignant, fast-growing cancer that affects the penis.

Stenosis

A narrowing or constriction of a body passage or opening, such as a blood vessel, the urethra, or the vagina.

Stone

A calculus.

Strangulated

Has a compromised blood supply.

Stricture

A narrowing that may be caused by scar tissue.

Subinguinal

Below the inguinal ligament.

Sulcus

A groove.

Superficial

Near the surface of the skin.

Superior scrotal region

The upper part of the scrotal area.

Sympathomimetic drugs

Drugs that increase bladder-outlet resistance (the obstruction between the bladder and the urethra).

Syncope

Fainting, or a sudden, temporary loss of consciousness.

Syndromic management

An approach in which diagnosis is based on the identification of *syndromes*, which are combinations of the symptoms the client

reports and the signs the health care provider observes. The recommended treatments are effective for all the diseases that could cause the identified syndrome.

Syphilis

A sexually transmitted infection (STI) transmitted during anal, oral, or vaginal sex.

Systemic involvement

A generalized, widespread involvement of the body.

Systemic signs

Signs that pertain to or affect the body as a whole.

Testicular atrophy

A decrease in the size, or wasting, of a normally developed testicle that is caused by either the death or reabsorption of cells or diminished cell division or volume.

Testicular failure

The inability of one or both testes to produce sperm or male hormones.

Testicular rupture

A break or tear of a testicle.

Testosterone

A type of male hormone.

Testosterone synthesis

Creation of the compound hormone **testosterone** by union of the elements that compose it.

Thenar eminence

The muscle at the base of the thumb.

Thermal trauma

A type of trauma caused by too much heat.

Thrombosed hemorrhoid

A blood clot in a hemorrhoid that causes an obstruction at its site of origin.

Thrombosis

A clot.

Transilluminate

To examine by passing light through tissues, such as the scrotum or a body cavity.

Transrectal ultrasound (TRUS)

Ultrasonic imaging through the rectum.

Transurethral ultrasound

Ultrasonic imaging through the urethra.

Trichomonas

A specific microorganism.

Trichomonas infection

An infection that is caused by the *trichomonas* microorganism.

Tuberculosis

A contagious bacterial disease.

Tuberculous epididymitis

A type of epididymitis that is caused by *tuberculosis*.

Tuberculous orchitis

Inflammation of the testes by infection with *tuberculosis*.

Tunica vaginalis

An internal covering of the testicle.

Ulcerative colitis

An inflammation of the large intestine and rectum that is characterized by bloody diarrhea.

Ulcers

Sores.

Undescended testes

A condition in which there are no testes in the scrotum.

Upper pole

Upper end or part.

Ureaplasma

A specific microorganism.

Uremia

Abnormally high levels of urea in the blood.

Urethral genital warts

Warts that are present in the urethra.

Urethral meatus

The opening of the urethra.

Urethral polyps

Small growths protruding from the mucous membrane of the urethra.

Urethral smear

A specimen of discharge from the urethra that is smeared onto a glass slide or some other specimen holder for processing.

Urethral stricture

Scar tissue that causes narrowing of the urethra.

Urethritis

An inflammation of the urethra.

Urinanalysis

An examination of urine.

Urinary diversion

A pathway (e.g., a tube that passes through the abdominal wall directly into the bladder) that temporarily leads urine away from an obstruction.

Urinary extravasation

A discharge or escape of urine from the urethra or bladder into surrounding tissues.

Urinary retention

An inability to urinate.

Urogenital diaphragm

Part of the structure that supports the urogenital system and genitalia.

Valsalva maneuver

During the genital examination, a client bears down as if he was lifting a heavy object.

Varicose

Dilated.

Vasoactive substances

Substances that can produce an erection when injected into the corpora cavernosa.

Vasoconstrict

To get smaller or narrower.

Venous compression

Squeezing of the veins by pressure.

Venous return

The flow of blood from the tissues back through the veins toward the heart.

Ventilatory support

Assistance with respiration or breathing.

Ventral

Lower.

Vesicles

Blisters or small sacs in the skin that contain fluid.

Vesicular border

The edge of a vesicle.

Viability

An ability to live or survive.

White blood cells (WBCs)

Another term for **leukocytes**.

Wood's light

Ultraviolet radiation from a mercury vapor source that is transmitted through a nickel oxide filter.

X-rays

Forms of electromagnetic radiation that are emitted by a machine as individual particles (photons) that pass through the body and are detected by a sensitive film.

Appendix J

Recommended References

Recommended References

Holmes, K. K., et al. 1999. *Sexually transmitted diseases*, 3rd ed. New York: McGraw-Hill Health Professions Division.

Monlia, R. F., and Knowles, J. 1997. *All about sex: A family resource on sex and sexuality*. New York: Three Rivers Press.

National Kidney and Urologic Diseases Information Clearinghouse Web Site. Erectile dysfunction. Retrieved from <http://www.niddk.nih.gov/health/urolog/pubs/impotnce/impotnce.htm#cause>, June 17, 2002.

Rosen, T., and Martin, S. 1981. *Atlas of black dermatology*. Boston: Little, Brown.

Schnare, S. 1998. The male examination. Unpublished paper.

Swanson, J. M., and Forrest, K. A. 1984. *Men's reproductive health*. New York: Springer Publishing Company.

U.S. Centers for Disease Control and Prevention (CDC) Web Site. Prostate cancer: The public health perspective. Retrieved from: <http://www.cdc.gov/cancer/prostate/prostate.htm>, June 25, 2002.

U.S. Preventive Services Task Force. 1996. *Guide to clinical preventive services*, 2nd ed. Screening: Human immunodeficiency virus infection. Retrieved from: <http://www.ahcpr.gov/clinic/uspstf/uspshivi.htm>, June 18, 2003.

Walsh, P. C., et al. 1998. *Campbell's urology*, 7th ed. Philadelphia: W. B. Saunders.

Wisdom, A., and Hawkins, D. A. 1997. *Diagnosis in color: Sexually transmitted diseases*, 2nd ed. London: Mosby-Wolfe.